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ABSTRACT

An overview of 1977 state reforms is presented here as well as current trends in litigation strategies, status of policy research on emerging issues, and prospects for 1978. The first section describes important finance reforms and modifications as well as recent court decisions in school finance and the changes that are emerging in school finance litigation strategies. The key feature of 1977 school finance reforms is a revised general aid equalization formula that distributes more state aid to school districts low in property wealth. Other reforms concern special education, compensatory education, bilingual-bicultural education, aid to central cities, aid to poor rural areas, income factors in state aid formulas, cost-of-education adjustments, and tax and expenditure controls. Section 2 of the booklet provides an overview of public policy issues related to school finance reform and discusses the results of research conducted on those issues. These issues include school finance equalization, the politics of education, changing societal demographics, collective bargaining, taxpayer revolt, and federal role in school finance. (Author/JM)

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School Finance Reform in the States: 1978

An overview of state actions in 1977, current trends in litigation strategies, the status of policy research on emerging issues and prospects for 1978.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Report No. F78-1

Prepared by Allan Odden

Education Finance Center
Department of Research and Information

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Education Commission of the States
Denver, Colorado 80295

Warren G. Hill, Executive Director

June 1978

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Foreword

This publication is one of a series of school finance policy studies that the National Institute of Education (NIE/DHEW) is supporting at the ECS Education Finance Center. It draws upon the center's technical assistance activities with state legislatures and governors, as well as its demonstrated knowledge in this important field. NIE's sponsorship of this work is based on our conviction that the major burden for school finance reform now falls on the nation's legislators and governors and that "goal oriented" research of this kind will lead to a more informed and productive debate on the subject of school finance reform.

The emergence of this key role for state legislators and governors is the product of a series of important and far reaching court decisions. Beginning with the Serrano decision in California, a number of state courts have directed state legislators and governors to reconstruct the ways in which education resources are raised and distributed. In light of this state focus, it is particularly appropriate that ECS undertake research of this kind.

We at NIE hope this publication will serve the needs of legislators, governors, state and local education officials and interested citizens and thereby assist in the development and implementation of more equitable and effective systems of school finance.

Denis P. Doyle
Chief, School Finance
and Organization
National Institute of Education

Introduction

Although 1976 was a quiet year for school finance reform, many states enacted new laws in 1977, making a total of 25 states that have enacted reforms of their elementary and secondary education finance structures during the 1970s. The key feature of the new school aid programs is a revised general aid equalization formula that distributes more state aid to school districts low in property wealth. Indeed, the formulas in California, Minnesota, Montana and Utah have recapture clauses under which the state collects excess property taxes raised in the wealthiest school districts for redistribution to poorer districts.

The types of equalization formulas that have been enacted can be classified into three categories:

1) High-level foundation programs such as those in Arizona, Florida, Indiana, Iowa, Minnesota, New Mexico, North Dakota, South Carolina, Tennessee, Utah and Washington.

2) Foundation programs augmented by guaranteed tax base or guaranteed yield programs for districts choosing to spend above the foundation level, such as those in California, Maine, Missouri, Montana, South Dakota and Texas.

3) District power equalization, guaranteed tax base, guaranteed yield or percentage equalization programs that provide equal revenues from state and local sources for equal tax rates such as those in Colorado, Connecticut, Illinois, Kansas, Michigan, New Jersey, Ohio and Wisconsin.

Since many states are phasing in their new programs over a three- to five-year period, the full impact of the revised finance structures will not occur until the programs are funded fully.

A second characteristic of the school finance reforms enacted in the 1970s is increased attention to student populations requiring special education, compensatory education or bilingual-bicultural education

services. In fact, large percentage increases in state aid have occurred in state special education appropriations. At this time, the billions of dollars states are spending for these services dwarfs the half-billion-dollar federal role. However, the federal role should rise when P.L. 94-142 (The Education for All Handicapped Children Act) is fully funded. Florida, Indiana, New Mexico, South Carolina, South Dakota and Utah are states that have linked, by a pupil-weighted formula, the distribution of state special education aid to the general aid formula, thus equalizing the flow of categorical aid in the same manner as general aid.

Nearly 20 states have enacted compensatory education programs for economically or educationally disadvantaged students. Illinois and Minnesota, moreover, recognize that it is concentration of poverty that produces the most severe educational disadvantage. These two states allocate greater dollar amounts per pupil as the concentration of poverty students increases in local school districts.

Bilingual programs also are rapidly being enacted in states with concentrations of students for whom English is not the first language. California, Colorado, Massachusetts, New Mexico, New York and Texas are states taking the lead in implementing these programs.

A third element in the new school finance reforms is recognition of the fiscal plights of many central city school districts, as well as the high costs incurred by school districts in poor and isolated rural areas. Both sparsity and density factors help finance some of the higher costs incurred by these types of school districts. Michigan, in fact, recognizes the drain on the education budget, because of the demand for non-education services, and allocates additional state aid to school districts in which non-education tax rates exceed the statewide average by more than 25 percent.

A fourth factor that describes the shape of newly enacted education finance structures is the increasing interest in and enactment of income factors. The new Missouri formula decreases the deduction tax rate for the foundation portion of its formula for low-income districts and increases it for high-income districts. Kansas and Maryland measure local school district fiscal capacity by a combination of property wealth and taxable income. Connecticut and Rhode Island weight the property wealth measure by a median family income ratio, the figures for which are taken from United States Census data. California, Illinois, Michigan, Nebraska, Ohio and Wisconsin are states studying the role of income and possible ways of modify-

ing their aid programs with income factors. Although current income data by school district do not exist in most states, Iowa, Kansas, Maryland, Missouri, Nebraska, New York, Oregon and Wisconsin are states collecting the data by requiring a school district identification on all state income tax returns.

A fifth new element of school finance reform is the increasing interest in cost-of-education adjustments on state aid. Florida uses a cost-of-living factor, but that adjustment has been criticized because cost-of-living differences are not the same as cost-of-education differences. Oregon and West Virginia also have investigated cost-of-living adjustments. Missouri has completed a two-year study of cost-of-education differences, and California has just begun a major study that will produce cost-of-education indices for each local school district. Texas also will develop cost adjustments during the next year.

A final element in the revised school aid programs is the growing use of tax and expenditure controls to stabilize property tax rates, thereby preventing education expenditures from increasing too rapidly. Although the expenditure controls in some states have become outdated with the nation's past high rates of inflation — and actually impede the progress of low-spending districts in "catching up" with high-spending districts — the use of expenditure controls and tax limits continues, both in school aid formulas as well as in programs for other state and local services. School finance specialists and the general public should view the thrust for property tax stabilization not as a threat of a property tax revolt but in a broader context as citizen demands for limitations on taxes and spending levels for all governments — local, state and federal.

In addition to characteristics of the distribution side of the school finance reforms passed in the 1970s are the property tax relief and reform measures that have accompanied the reforms on the taxation side. Arizona, Colorado, Kansas, Minnesota, New Jersey, North Dakota and Wisconsin are states in which school finance reform programs absolutely reduced the property tax burden. New school aid programs not only reduce property taxes but make the burden more fair on a school district basis — both by decreasing tax rates in poor school districts and by providing equal revenue for equal tax rates. Many states complement the school aid formula with a state-financed circuit breaker program of property tax relief. Such a program limits property tax payments as a percent of income for low-income families and individuals and thus creates a property tax structure that is equitable for both school districts and individuals.

Minnesota, Michigan and Wisconsin are states that have expanded their circuit breaker programs in the wake of school finance reform to protect all low-income households from property tax overburdens.

A final hallmark of school finance reform has been a large increase in the state fiscal role. For the 18 states that enacted new school aid bills prior to 1975, the state role increased from 39 to 51 percent, a rise of 12 percentage points. In most cases, this increase occurred without increases in states' sales or income tax rates. However, Minnesota revised both corporate and individual income tax rates as part of its reform, and New Jersey enacted an income tax to fund its new program.

It is important to note, moreover, that an increase in state financing of elementary and secondary schools can occur without an increase in state administrative control over the schools. In both Florida and California, for example, the school aid changes have been accompanied by governance changes that not only encourage, but in some cases require, decentralization of both budget and administrative control to the local school site level.

The remainder of this booklet discusses many of the recent events in education finance and is divided into three sections. The first section describes the new school finance reforms enacted by a number of states in 1977, as well as some important modifications passed in other states. This section also includes an examination of recent court decisions in school finance and the changes that are emerging in school finance litigation strategies. Section II provides an overview of a number of public policy issues related to school finance reform and discusses the results of research conducted on those issues. The last section gives a brief description of school finance activities expected to occur in 1978 for all 50 states. A glossary of many school finance and tax terms is given in an appendix.

I. Events In School Finance: 1977

Legislation

In comparison to 1976, 1977 was a banner year for new school finance reforms. In 1976, New Jersey was the only state to implement a major change in its school financing structures; during 1977, at least seven states passed bills that overhauled their elementary and secondary education finance structures, and other states passed important modifications to programs already in place. In addition, many other states were conducting intense study of their finance mechanisms, with the objective of making policy recommendations for the 1978 and 1979 legislative sessions. New court suits have also been filed, and new litigation strategies are being tested.

In late 1977, one of the concluding chapters was written in *New Jersey* concerning the numerous activities related to school finance reform. The major obstacle to changing the financing structures in New Jersey was the lack of state revenues available to implement any acceptable reform program. Though the legislature passed a new funding plan in 1975, it was not implemented because the legislature could not pass an income tax bill required to raise the revenues to finance the new plan. In July 1976 the State Supreme Court took the unprecedented position of closing the public schools until the legislature decided on both an acceptable school finance program and the necessary tax package to fund it. Shortly thereafter, the legislature passed a statewide income tax: 2 percent of incomes under $20,000 and 2.5 percent of incomes over that amount. The income tax bill, however, included a clause stipulating that the tax would expire in December 1977 unless reauthorized by new legislation.

Subsequently, the New Jersey gubernatorial elections in 1977 turned into a referendum on the income tax — with the incumbent Governor Brendon Byrne favoring the tax and his opponent opposing the tax. Byrne's chances for re-election seemed very remote early in 1977; however, by poll time, it seemed that the New Jersey public had come to accept the necessity of the tax — if for no other reason than the lack of any reasonable alternative. When Byrne won the November election, he asked the 1977 legislature, which was still in

session, to pass legislation to extend the income tax. In early December, the legislature responded and, with sizeable margins in both chambers, made the New Jersey income tax permanent. In addition to these political forces, another factor that may have made the income tax more agreeable was that it accomplished, much to the surprise of many, what it set out to accomplish: namely, substantial property tax relief in addition to funding school finance reform.

In the summer of 1977, *California*, responding to its Serrano court mandate, passed the omnibus AB 65, which represented not only a school finance policy change but also the setting of major parameters in elementary and secondary education policy in general. Under this bill, the state will increase its role in financing public education by an additional $4.2 billion over the next five years. The new law increases the foundation program to provide all districts the revenue per pupil of the school district at the 75th percentile expenditure level, thus making the California system one of the highest foundation programs in the country. Although the flat grant of $125 will be continued for all districts, the new law also requires all districts to levy a minimum foundation tax rate and recaptures a percentage of any funds that the minimum tax rate generates above the foundation expenditure. For districts choosing to spend above the foundation expenditure level, additional tax rates will be power equalized, including recapture, so that equal additional tax rates will provide equal additional revenues per student. The state's compensatory education program was also expanded to target new state aid to both low-income students and students from families whose dominant language is not English. AB 65 also increases the state role in providing aid for special education services for the handicapped. In addition, the bill includes a declining enrollment provision, under which 75 percent of the enrollment decline may be counted for purposes of state aid in the first year of the decline and 50 percent in the second year. Although the bill included a provision to compensate districts for variable education costs, that section was vetoed by Governor Jerry Brown pending a rigorous study of education cost differentials being conducted by the Education Commission of the States (discussed below).

One of the most intriguing aspects of California's new bill is the attempt to generate innovation and control of education at the local school site level. Schools within school districts are eligible for an additional $110 per pupil for innovative programs, focused on the basic skills, that are developed by a school council comprising parents, teachers, the principal and, for high schools, students. Representatives of this council must present the proposed programs orally to regional panels that decide which programs are to be funded. The

oral presentations for regional panels are required to dampen the possibility of districts hiring outside consultants to write proposals and design the programs. The objective of this section of AB 65 was to generate education innovation from the bottom up (i.e., from the school site level) and thus help counter the trend, both within California as well as across the country, for centralization of so many of the issues related to education policy.

Missouri enacted HB 131 that incorporated most of the school finance reform recommendations of the 1976 Governor's Conference on Education. The new formula is a two-tiered plan, with a foundation expenditure per pupil equal to 75 percent of the statewide average expenditure per pupil. Above that is a guaranteed tax base that, in 1977-78, will cover 85 percent of the students in the state but will increase to cover 90 percent by 1981-82. For 1977-78, the foundation expenditure support level is $849 and the guaranteed tax base is $24,238. The wealth measure is assessed valuation of property per pupil, adjusted by an assessment-sales ratio. The basic pupil count is 50 percent ADA and 50 percent membership. Enrolled public school students from families receiving ADC assistance and orphans will be weighted an additional 25 percent in the foundation part of the formula.

An income factor is also included in the new law. The income factor is applied to the deduction tax rate of the foundation part of the program. Specifically, the deduction tax rate is increased (or decreased) by half the deviation of a district's average adjusted gross income per return from the statewide average for high- or low-income districts. This adjustment not only affects the foundation tier, but also affects the guaranteed tax base tier since the tax rate used to calculate guaranteed tax base aid is equal to the current operating tax rate minus the modified deduction tax rate.

HB 131 also increases state support for transportation and special education. State aid for transportation is raised to equal not less than 80 percent of a district's allowable transportation costs but cannot exceed 125 percent of the statewide average transportation cost per pupil. The basic state program for special education was left intact but the dollar support per special education classroom that had ranged from $4,500 to $6,000, depending on handicapping conditions, was increased to range from $5,044 to $6,726. In future years, these figures will change automatically by the percentage equal to the percentage change of total appropriations for the general aid formula.

The state hopes to phase in the funding of the new law over a number of years. The bill limits state aid increases in each district to 25 percent of the difference between the calculated aid per pupil and the aid per pupil received in the previous year. It is projected that about $200 million will be needed to fully fund the new program; $52 million in new funds were appropriated for distribution during the 1977-78 school year with funds available from a state surplus generated by natural growth in the state's tax structure. The bill represents the first major school finance change in Missouri since 1969.

Pennsylvania passed an important modification to its system of distributing state equalization aid to school districts. Under the new law, AB 59, the state will continue to use a percentage equalizing reimbursement system but the measure of school district wealth will be modified to include income as well as equalized property valuation. Under the system, 40 percent of a district's taxable income per weighted pupil (high school students are weighted 36 percent higher than elementary students) is combined with 60 percent of its equalized real property valuation to determine a district's relative wealth. In order to promote more equality of expenditures per pupil, the lesser of a district's actual instructional expenses per weighted pupil or the reimbursement base is included in the formula. The reimbursement base is the statewide median instruction expenditure per weighted pupil for districts making a tax effort in excess of 130 percent of the statewide average tax effort. For districts making less than 130 percent of the statewide average tax effort, the reimbursement base is the statewide median instruction expenditure per pupil reduced by up to $200 depending on the actual tax effort.

South Carolina also moved into the school finance reform circle in 1977 by replacing its classroom unit foundation program with an ADM-weighted pupil foundation program with increased funding from both the state and local levels. The wealth measure is assessed valuation of property adjusted by an assessment sales ratio and includes an imputed value for the receipt of federal impact aid. The pupil weights enacted are: 1.3 for K-3, 1.0 for grades 4-8, 1.25 for grades 9-12, 1.74 for educable mentally handicapped and learning disabled, 2.04 for trainable mentally handicapped and emotionally and orthopedically handicapped, 2.57 for visually and hearing handicapped, 1.9 for speech handicapped, 2.10 for homebound, 1.2 for prevocational and 1.29 for vocational education. Students can be counted in only 1 of 11 categories. Districts will be required to spend at least 85 percent of the state aid in the category generating the aid. The foundation program is to be funded approximately 70 percent by the state and 30 percent by local school districts, whereas the previous formula had not required any local contribution. The program will be

implemented over a five-year period, beginning in 1978-79, with approximately $20 million in additional state aid each year. This reform bill is the result of more than three years of study and legislative debate with active support of a broadly based statewide citizens coalition.

HB 868 was passed in *South Dakota* in early March, after two years of study and legislative debate, and will replace the current minimum foundation formula that allocates aid on the basis of classroom units. The new plan is an ADM-weighted pupil formula, with the following weights: 1.0 for kindergarten students for a half day, 1.1 for grades 1 and 2, 1.0 for grades 3 to 12, 2.0 for all categories of special education, a sparsity factor of 1.01 to 1.04 for school districts with less than 1.25 pupils per square mile and 1.02 to 1.16 for small school districts with less than 500 students. The formula also counts each one-room rural school as a minimum of 20 students. The formula is two tiered, with a foundation expenditure per weighted pupil of $829 and, above that, a guaranteed tax base at a level that covers 85 percent of the students in the state. The $829 figure will increase each year at the rate the statewide average expenditure per pupil increases, with a limit of 7 percent. The wealth measure in the formula is assessed valuation of property per weighted pupil, adjusted by an assessment-sales ratio. Expenditure-per-pupil increases at the district level are limited to 15 percent; additional funds must be used for property tax relief. The new act is to be implemented July 1, 1980.

Tennessee's school aid formula had remained virtually the same for nearly 20 years and had become complicated to understand because of the numerous incremental changes that had been enacted. SB 400 replaces the current teacher unit formula with an ADA-weighted foundation formula. The pupil weights are: 1.2 for K-3, 1.0 for grades 4-6, 1.1 for grades 7 and 8, 1.2 for grade 9, 1.3 for grades 10-12, a range of 1.84 to 2.62 for vocational education, and 2.07 for all categories of special education. Districts will be required to spend at least 85 percent of the state aid in the category generating the aid. The foundation program funds will be allocated to local districts on the basis of the total number of weighted students and the district teacher experience and education factor and, statewide, will be funded 90 percent by the state and 10 percent by local school districts. The new measure of school district wealth is adjusted property valuation and replaces the old county economic index. The program will be implemented in the 1977-78 school year and will be funded with an additional $3 million. This bill represents a major step forward for Tennessee and is as much a school finance simplication bill as a school

finance reform bill. A companion bill also increases state funding for transportation services.

The *Texas* Legislature, in a special 1977 fall legislative session, enacted a new school finance bill that will increase the state's share of the foundation program from 75 percent to approximately 85 percent. The power equalization component of the formula, in addition to the foundation program, will provide a maximum entitlement of $310 per student for those districts whose average property value is in the lowest quartile of wealth and will provide up to $185 per ADA to other districts having less than 110 percent of the statewide average property value per student. All districts will receive $110 per student as an operations cost allotment. This legislation also reduced pupil-teacher ratios and reduced the school year by five days. In addition, the legislation established two new committees: one to supervise tax assessment practices and the other to explore and develop a revised method for financing state programs of public school education.

In responding to the early 1977 court decision holding the *Washington* school finance invalid because of its failure to provide an "ample education" required by the state constitution, the Washington Legislature passed in June 1977 a series of three bills that create a new state aid distribution system, define basic education and severely limit the local use of special excess property tax levies. Under the new formula, districts will be allocated one certified staff for every 20 students, one noncertified staff position for every 60 students, an amount equaling about $3,700 for each certified staff position for nonsalary costs and additional aid for remote and necessary schools, and small schools. Transportation will also be funded 100 percent by the state. The dollar amount each district receives under the basic formula will be determined by multiplying the number of staff positions by the average teacher salary in the school district. The program will be phased in over the next three years and is estimated to cost an additional $900 million. The local share will continue to be derived from a statewide property tax of one percent of the fair market value of property. A companion bill defined basic education by stipulating the number of hours of instruction in more than 10 program areas. The third bill limits the magnitude of special excess local property tax levies to 10 percent of the prior year's basic education allocation and severely limits the use of special levies for raising teacher salaries.

A bill providing state financing for school construction became law in *Maine*, ending a two-year moratorium on a state role in school

construction. The bill requires the district to contribute either five percent of the cost of the new building or the equivalent of one mill of its property tax effort — whichever is less The state finances its share of the building costs by reimbursing the community to offset note payments owed for bond issues.

On Dec. 5, though, Maine voters by a 3-2 majority overturned the state's uniform school finance property tax. The tax was unpopular because it required nearly 13 percent of Maine school districts to pay excess property tax revenues generated under Maine's foundation program to the state for redistribution to property-poor school districts. The vote, however, did not fall along rich-town/poor-town lines since many towns receiving substantial state equalization aid voted against the tax. The vote did not necessarily throw out the entire Maine school finance system, but only the "recapture" component of it. An evaluation of the Maine school finance program, "Maine's School Finance System: Is it Equitable?" (Callahan and Wilken, October 1977) had given the finance program high marks. The authors found that, since enactment, Maine taxpayers had experienced local property tax relief, that school expenditures and teacher salary increases had been below the national average, and that local non-education expenditures had increased at a greater rate than education expenditures. The immediate problem for the legislature in 1978 will be to replace with state revenues the $5-$10 million received from the wealthier school districts.

Beginning with this school year, *Minnesota* will recapture a portion of the excess revenues collected by school districts when they tax themselves at the maximum levy allowed under the foundation program. The procedure for such recapture specifies that the state will deduct 20 percent of the aid that the district would otherwise have received in 1977-78 under the state transportation, vocational and special education aid programs to the extent that there are local district excess revenues for the general aid program.

New York passed a bill that raises the expenditure level in its foundation program from $1,200 to $1,400 per pupil. The bill also sets a limit of six percent on state aid increases, either on a per-pupil or a total basis. Although the bill still incorporates a number of hold-harmless clauses, the new bill decreased the number of school districts affected by hold-harmless provisions from nearly 700 to around 500.

Wyoming has passed a law equalizing the distribution of state aid for

capital outlay and debt service. Under the law, the state will pay to each school district the difference between $3,200 multiplied by the number of classrooms in the district and the yield of a four-mill levy on the current assessed value of the district. Funds for the program, which is designed to encompass the full current costs of construction, including building costs and anticipated interest costs, may be generated from any state fund except the general fund. In its initial year of operation, the program will not be funded fully.

The *federal government* again became involved in debates on a federal role in general, equalization aid. The U.S. House Committee on Education and Labor held two days of hearings on legislation that would provide general aid to school districts for the purpose of reducing spending gaps among school districts in a state. The bill, H.R. 1138, introduced by Chairman Carl D. Perkins, would authorize funds for two types of grants, basic grants and equalization grants, both to be appropriated only when the funds for Title I of the federal Elementary and Secondary Education Act equal or exceed $3 billion. In order to receive the equalization grants, a state would need to submit a plan for the approval of the U.S. Commissioner of Education to achieve equalization of resources among districts within a 10-percent band. As a first step in implementing a federal equalization role, a major study may be developed at the federal level to determine the nature and extent of inter- and intrastate equalization (See Section II).

Nearly all states are engaged in studies of elementary and secondary education finance structures with the help of federal Section 842 funds. The new state plans developed as a result of these studies will be available sometime in the fall of 1978. In Connecticut, the 842 funds are being used to finance a series of policy analyses for an interim legislative committee that was organized to respond to the Horton court mandate in the state. In North Carolina, a Governor's Commission is using 842 funds to engage in a major study of that state's education finance and tax structure, for the purpose of developing reform recommendations for the 1979 legislature. The West Virginia Legislature has just completed a comprehensive study of its education finance and tax structure and will be debating recommended changes during the 1978 legislative session. And the Arkansas Legislature, one of the few legislatures to receive 842 funds, is in the process of having an interim committee on school finance take a close look at the financing of elementary and secondary education in that state.

Finally, in his January 1978 message to the legislature, Indiana

Governor Otis Bowen again raised the issue of the diminution of local control of elementary and secondary schools in the light of recent trends toward centralization of so many of the rules governing the implementation of education programs. "Consideration of any new school formula must include a reckoning of its long-run implications for the educational decision-making process," he stated, echoing an emerging theme increasingly concerning many state policy makers.

School Finance Litigation

Although there were only a few judicial decisions rendered in school finance court cases during 1977, litigation still remains a primary means of generating school finance reforms. School finance litigation strategies, however, are undergoing significant changes. The major arguments used in school finance court cases, as little as three years ago, have become the minor arguments used in many of the current court cases. State policy makers should take note of the new legal arguments, the facts on which they rest and the implications for school financing policies should they be upheld in upcoming court actions. Two summaries of the current status of school finance litigation and the developing new legal strategies are those by the Lawyers' Committee (1978) and Levin (1977).

The initial court cases were initiated on equal protection grounds, on the basis of both state and the federal constitutions. Most cases sought to persuade the court that education was a fundamental interest of the state and/or that the state's method for funding education created a suspect classification of school districts on the basis of property wealth. This strategy was used because, if successful, it would trigger "strict judicial scrutiny" putting the burden on the state to show that the funding structures in force were needed for some "compelling state purpose." In all cases, this was too onerous a burden. Once the court accepted the fundamental interest or suspect classification argument, the school finance structure was overturned. The state was then required to implement a fiscally neutral system, i.e., one that eliminated wealth as a factor in education expenditures. On the other hand, if the court did not accept the fundamentality or suspect class arguments, the "rationality" test was invoked, putting the burden on the plaintiff to show that the structure was irrational and without any reasonable basis. In all instances in which the rationality test was used the constitutionality of the structure was upheld.

Thus far, two state supreme courts have held education to be a funda-

mental interest of the state. In both the 1976 decision of the California Supreme Court in the *Serrano* v. *Priest* case and the 1977 Connecticut Supreme Court decision in the *Horton* v. *Meskill* case, the courts ruled, under the state equal protection clauses, that education was a fundamental interest of the state and that the then current education finance structures fulfilled no compelling state interest. The courts ordered both states to develop new laws that did not make education opportunity a function of local wealth.

In the *Lujan* v. *Colorado* case in Colorado, filed on both equal protection grounds and the education clause in the constitution, a lower district court judge ruled in 1977, on a motion to dismiss, that education was a fundamental right because it was explicitly mentioned in the constitution. The judge went on, moreover, to state that because there is such a close relationship between education and other fundamental rights that have been accepted by federal and state courts, education would be a fundamental right even if it were not mentioned in the state constitution. This is probably the strongest statement on the fundamentality of education that has resulted from any of the school finance court suits, but the Colorado Supreme Court has not made a final ruling on this issue.

Fiscal neutrality court cases, however, are becoming more complicated. Although both the Connecticut and California courts accepted the traditional fiscal neutrality argument (that education opportunity should not be a function of local wealth, thus implicitly accepting a taxpayer equity argument) the New Jersey court in the 1973 *Robinson* v. *Cahill* case and the 1977 Ohio District Court in the *Cinninnatti* v. *Essex* case, explicitly rejected the taxpayer argument. The Ohio court, though, went beyond the wealth aspect of fiscal neutrality and suggested that education opportunity should not turn on either local income or local voter choice. That decision confronted directly some of the criticisms of simple wealth-based fiscal neutrality structures, i.e., that the high-income districts tend to have higher tax rates and thus higher expenditures. The Ohio court said that such a phenomenon also violates constitutional requirements under the fiscal neutrality standard.

While the comprehensiveness of the traditional fiscal neutrality argument is being expanded, additional court standards, based primarily on the education clauses in state constitutions, are also being developed. For example, in a case filed in 1977 by the city of Seattle, a district court overturned the Washington finance structure claiming that the state program did not make an "ample provision" for education. Similarly, courts in New Jersey and Ohio have overturned

state education finance structures for not providing a "thorough and efficient" education. The case pending in West Virginia is also based on a "thorough and efficient" education constitutional clause. The case filed in Colorado claims that the current system does not provide for a "thorough and uniform" system of education, and the case most recently filed in South Dakota asserts the current system violates the "thorough and efficient" and "general and uniform" education clauses.

These state constitutional requirements must be defined; however, clear definitions are not easy to produce. It is important to note, though, that the definitions being given to these state clauses currently are setting up standards for state school finance structures that are more stringent than traditional fiscal neutrality standards.

Both the Ohio and Colorado cases attack expenditure differences per pupil, claiming that "thorough and efficient" and "thorough and uniform" clauses do not allow a school finance structure that permits large expenditure per-pupil differences, which are unrelated to pupil need and education costs, across school districts in a state. The plaintiffs in both cases argued that differences in expenditures implied differences in the education services provided to children. In Ohio, plaintiffs showed that many low-spending districts were not meeting state minimum standards, thus clearly not providing a thorough and efficient education. In both cases, the focus on applying the legal standard was on differences in school inputs.

School inputs were also the focus in the Washington case, in which the court ruled that the constitutional requirement of the state's "paramount duty" (to make an "ample provision" for education) meant that the state must provide a high-quality basic education, defined by components of school inputs, without locally voted special tax levies. The legislature responded shortly after the decision with a new state law (discussed above) that stipulated which educational services would constitute a basic education.

Even the California Supreme court in the Serrano case adopted a form of an input standard when it stated that differences in educational expenditures reflected differences in educational quality. One interpretation of the state constitution, noted the court, therefore disallowed great expenditure differences per pupil.

New Jersey has gone beyond the student input standard and, in the

process of defining "thorough and efficient" for that state, has implied a student output standard. The court stated that "thorough and efficient" means students are to be prepared to compete in the labor market to the degree commensurate with their abilities. To make that statement precise, the legislature and state policy makers have developed a minimum student output standard, requiring a minimal level of student achievement as one test of a "thorough and efficient" school system.

Court arguments have gone beyond even these more stringent general standards in the development of special standards or considerations for either specific types of school districts or specific student population subgroups. For example, the intervention by the big five cities in the *Levittown* v. *Nyquist* case in New York raised the issue that certain high-cost needs of city school districts would be ignored if simple or expanded legal standards were adopted by courts. The five cities argued that a constitutionally permissible finance structure should consider the higher costs of providing education services in central city school districts; the higher incidence of special-need students like the handicapped, low income and bilingual; and the drain on the education budget caused by the need to provide high levels of non-education services. Similar issues were raised in the Washington case and, although the court explicitly rejected special urban factors, it did accept the argument that costs are higher in cities. The Ohio case entailed similar arguments, with the court accepting explicitly the argument that the incidence of high-cost students is above average in city schools.

A second example of special-needs litigation pertains to the education of the handicapped. Although many states, as well as the federal government, have enacted comprehensive special education programs for the handicapped, the programs ultimately will have to meet the standards set by the courts in the series of cases that have been heard on these issues. Similarly, courts continue to scrutinize the education services provided to students whose dominant language is not English.

Another potential avenue for litigation in school finance concerns the alleged underfunding of predominately black school districts in some Southern states. Underfunding is an unanticipated consequence of desegregation. In some places, desegregation has been accompanied by white flight to private segregated academies, with the public schools becoming predominately black. However, fiscal control of the schools often remains in the hands of the local school board, which many times is dominated by the white power struc-

ture. Sherman (1977), in a study of this issue over a number of years in South Carolina, found that many school boards had reduced local support of public schools in black districts, through local tax rate deductions, resulting in tax savings that could be used to offset the cost of tuition in the segregated academies. Thus, black children who received fewer dollars under the segregated system continued to receive fewer dollars under the newly created public/private system. The report found that lower tax rates, together with lower property wealth, produced lower education expenditures in many black districts in comparison to districts with higher proportions of white students. Sherman is continuing his study in the states of Louisiana and Mississippi. If the results are strong, a litigation strategy based on due process could be developed to challenge these unanticipated results of desegregation.

In short, litigation on issues related to school finance has not abated, has become much more complicated and comprehensive, and sets stricter standards for the acceptability of a state's education finance structure. Probably the most important of the recent court cases are those in Ohio and Colorado (both of which are school finance reform states), with Colorado passing its reform in 1973 and Ohio in 1975. Both states passed variations of a guaranteed yield program designed to produce a fiscally neutral structure. The new legal challenges claim that because the structure allows significant variations in expenditures per pupil, even though fiscal neutrality may be met by the structures, they are inconsistent with "thorough and efficient" and "thorough and uniform" constitutional requirements. If these challenges are successful as they wind their way to the respective state supreme courts, the acceptability of fiscal neutrality will be in significant jeopardy, as well as the types of school finance programs that are used to implement such a standard.

II. Public Policy Issues in School Finance Reform

The issues related to inequities in public school finance structures no longer hinge mainly on relationships between expenditure per-pupil levels and local school district wealth. The push for fiscal neutrality continues, including the use of legal strategies based on the fiscal neutrality concept. However, it is recognized by both state policy makers and school finance scholars that the issues related to school finance are much more complicated, must be analyzed within the broader context of local, state and federal public finance and intergovernmental fiscal relations, and are importantly affected by the changing demographics of the society in general, including the increasingly fragmented politics of the public education policy-making process. This section discusses some of these complex issues, beginning with an attempt to identify different definitions and concepts of school finance equalization.

School Finance Equalization

There are at least four major issues related to school finance equalization. The first concerns definitions of equalization, including different concepts of equity in school finance. This issue also encompasses the implications of each definition for appropriate school finance programs and the effects such programs have on students and taxpayers. The second issue concerns wealth equalization and the growing body of research that is showing that wealth equalization is more complicated than previously considered. The third issue relates to pupil-need equalization and the attempts to provide additional services for high-cost student populations, including the need to structure the financing mechanisms of those services to enhance overall equalization objectives of the general aid program. The fourth issue concerns cost equalization and the possibilities for modifying school-aid formulas for the varying purchasing power of the education dollar across school districts within a state. Equity concerns should also include special district needs such as density, sparsity, pupil size, declining enrollments and the squeeze on the education budgets caused by demands for non-education services.

Definitions of Equity. As discussed in the previous section on the courts, there are numerous legal standards as well as other definitions of equity in school finance. It is critically important for policy makers to be aware of these different definitions because each requires a different type of equalization formula for implementation, and each will have different fiscal results, will affect students differently and will impose different tax burdens on households. As the reform states have begun to examine the results of their new programs, one of the most perplexing phenomena has been the use of inappropriate criteria to evaluate a particular program. The most common example is the disappointment of many policy makers over the ineffectiveness of power equalization or guaranteed yield programs in reducing large expenditure per-pupil gaps between high- and low-spending districts. The fact is that such programs are not intended to reduce spending gaps.

There are basically two different definitions of financial equity in school finance: fiscal neutrality and expenditure per-pupil equality. In assessing whether a state school finance structure meets either standard, the data should be adjusted for differences in education costs and pupil needs across school districts. Although pupil needs have typically been characterized on the input side in terms of services for the handicapped, bilingual or vocational student, a new trend in education is focused on outputs such as student achievement. The pupil-need adjustment, therefore, could include a requirement for minimum of equal student outcomes.

The fiscal neutrality standard is not concerned with expenditure per-pupil differences per se, but requires only that expenditure per-pupil differences not be related to differences in local school district fiscal ability. The objective of this standard is to eliminate the relationship between local wealth and expenditure levels by equalizing the ability of all school districts to raise education revenues from local and state sources. Education revenues become a function only of the tax rate, i.e., districts are free to set tax rate levels but all districts choosing the same tax rate will receive the same level of per-pupil revenues. Therefore, this equity standard is focused more on taxpayers than on students. Appropriate school finance programs for implementing this equity standard include district power equalization, guaranteed tax base, guaranteed yield or percentage equalization programs.

The second equity standard is primarily focused on students and requires that expenditures per pupil, after adjustments for different education costs and pupil needs, be equal across all school districts in a state. This standard is concerned with the expenditure per-pupil

gaps between high- and low-spending school districts and requires the reduction, if not elimination, of those differences. Appropriate school finance programs for implementing this equity standard include a high-level foundation program, with very limited local enrichment, or a full-state assumption program.

The fact that fiscal neutrality neither requires nor generally results in reductions in expenditure per-pupil differences should not be overlooked. For example, the Hickrod (1976) analysis of the Illinois resource equalizer formula shows that, while progress has been made in eliminating correlations between local property wealth and expenditure levels, significant expenditure differences remain in the system. Similar findings have occurred for the fiscal neutrality programs that have been adopted in Colorado (Montoya, forthcoming), Michigan and Missouri (Odden, September 1977).

The fact that fiscal neutrality programs do not reduce significantly expenditure per-pupil differences is one consistent fact across all the states that have enacted programs designed to create a fiscally neutral system. On the other hand, states that have developed and funded new school-aid structures designed explicitly to reduce expenditure differences have closed expenditure gaps. The best example is the New Mexico foundation program, which guarantees a foundation expenditure per pupil and prohibits any local enrichment. New Mexico is one of the few states in the country (in addition to Hawaii with its full-state assumption program) that qualifies under the expenditure disparity clause for counting federal impact aid as local revenue. To so qualify, New Mexico has reduced the expenditure per-pupil differences between the school districts at the 5th and 95th percentile to less than 15 percent.

Selection of an equity standard for a state's school finance structure should be one of the first tasks in the process of designing and implementing a new school-aid formula. However, attention must be given also to the particular measures to be used in evaluating the system against the standard. With respect to fiscal neutrality, the issue is whether the aid allocation process or the *results* from the process are to be judged. In Friedman and Wiseman's (1977) term, the question is whether the system is to be evaluated ex ante (i.e., the process) or ex post (i.e., the results). The example given by Friedman is that the *process* can be fiscally neutral by guaranteeing equal revenues for equal tax rates — but that, if high-wealth districts tend to have high tax rates, the *results* will not be fiscally neutral because the higher expenditures will occur in the higher wealth, higher tax-rate districts. Therefore, a finance system can remove the *inherent*

advantage of high-wealth districts, but wealth and expenditures could still be related if high-wealth districts choose higher tax rates. Policy makers should be aware of this distinction and structure evaluations of the state's program with that distinction in mind. It would not be unfair, however, to state that public policy research in general has been primarily concerned with results and is therefore suspect of a process that seems fair but produces inequitable results.

Until recently, school finance analysts have given little attention to the statistical tests used to measure the degree to which a system meets either equity standard. Yet there are a great number of conceptual issues related to the various statistical tests that can be used. There are many tests of equality; each has strengths and weaknesses. A state could score high on one equality test but low on another. Similarly, there are many tests of fiscal neutrality that could conceivably rank a state differently. Berne (1977) presents the most comprehensive discussion of these issues, discussing the following equality tests:

> "range, 5th to 95th percentile range. Federal expenditure disparity measure under impact aid regulations," McLoone index, relative mean deviation, variance, coefficient of variation, standard deviation of logarithms and Gini index,"

and the following fiscal neutrality measures:

> "simple correlation of expenditure with wealth and income; regression slope at mean wealth and income with dependent variable being expenditures per pupil and independent variables being: wealth; wealth and wealth squared; wealth, wealth squared, wealth cubed; income, income and income squared; income, income squared, income cubed."

An informal school finance cooperative, consisting of project researchers funded by the National Institute of Education and the Ford Foundation, is currently investigating these measures in over 30 states for which the projects have a universal sample of district data. The objective of this cooperative venture is to produce a set of statistical tests to be used to assess how each state's school finance structure meets either the expenditure per-pupil equality or fiscal neutrality equity standard. By the end of 1978, it is anticipated that a "state of the states", with respect to school finance equalization under both equity standards, can be reported for all states for both the

1975-76 and 1976-77 fiscal years. This information should be useful for states individually, as they assess the effectiveness of their current structures, and for the federal government, should it enact a federal program to encourage school finance equalization.

In summary, there are four important elements related to definitions of equity in school finance equalization:

1) Choice of a particular equity standard.
2) Design of an appropriate school finance program to implement it.
3) Determination of point in time at which to evaluate the program.
4) Selection of measures on which to make evaluation judgments.

Wealth equalization. Most states continue to assess local school district fiscal capacity by assessed valuation of property per pupil. Many states modify the assessed valuation figures by assessment-sales ratios to adjust for the varying levels of assessment across assessing jurisdictions. This simple fiscal capacity measure has come under attack in recent years for a number of reasons. First, it has been shown that income is an important determinant of school district fiscal decisions in addition to property wealth (Hickrod, 1971; Yang and Chaudri, 1976). Second, as indicated in Table 1, there is little

Table 1

Correlation Coefficients Between Property Wealth Per Pupil and Income Measures in Selected States for Selected Years

State	Year		Correlation Between Property Wealth Per Pupil and	
	Property Wealth	Income	Income Per Pupil	Income Per Household
Colorado	1975	1975	0.38	−0.15
Connecticut	1975-6	1970	—	0.14
Florida	1975-6	1970	—	0.24
Kansas	1973-4	1973-4	0.57	—
Minnesota	1975-6	1975	—	0.20
Missouri	1975-6	1975	0.39	0.19
New Jersey	1975-6	1970	—	−0.20
New York	1975-6	1970	—	0.01
Oregon	1975-6	1970	—	−0.09
Texas	1975-6	1970	—	−0.03

Source: State data files, Education Finance Center, Education Commission of the States. Kansas: Darwin Daicoff, "An Evaluation of the Kansas School District Equalization Act of 1973," *Selected Papers in School Finance, 1976*, (Washington, D.C.: U.S Office of Education, 1977), pp. 1-40.

correlation between property wealth per pupil and income per pupil or household income in many states.* Third, economic research has demonstrated that wealth equalization is a function not only of (1) total property wealth and (2) household income, but also of (3) the composition of the property tax base and (4) the structure of the equalization formula itself (Grubb and Michelson, 1974; Feldstein, 1975; and Ladd, 1975). The effect of these factors on the local "economic price" of providing education services must be determined in order to design an equalization formula to neutralize all four elements.

The basic argument that all four factors influence local school district decisions is as follows: first, without any state equalization-aid formula, high-property-wealth districts are able to raise greater revenues at a given tax rate than low-property-wealth districts. This argument has led to the development and use of the current set of equalization programs, based primarily on property wealth per pupil. Second, even with such equalization formulas that neutralize wealth differences, however, districts with higher-income residents bear a lower percentage burden in providing a given level of education than districts with lower income, i.e., the wealthier group of residents spend a smaller portion of their income. Third, even holding total property wealth and household income constant, districts with a greater proportion of the property tax base comprising nonresidential property (i.e., commercial and industrial property) are able to shift some of the property tax burden to nonresidential property owners. Thus to raise an additional $100 per pupil, for example, the greater the nonresidential property tax base, the lower the price for the extra expenditure for resident homeowners. Finally, the structure of the aid formulas is important because, for foundation types of systems, the state aid is fixed so long as the district levies the minimum required local tax rate, while for percentage equalizing or guaranteed tax programs the aid is variable, depending not only on local wealth but also the local tax rate. State aid will rise as the district increases its tax rate, but it should be kept in mind that the additional state aid must be matched by increases in local dollars.

An expanding literature on policy analysis treats in detail both the issues of how state aid formulas with a "price" variable and how local

* Although income and residential property tend to be positively correlated, total property wealth includes commercial, industrial and agricultural property as well as residential property. The existence of many poor families in areas with large proportions of nonresidential property is a major reason income and total property wealth may not be highly correlated.

fiscal capacity measures, other than total assessed value of property per pupil, affect local district expenditure decisions. Barro (1972) and Inman (1977) have developed the most comprehensive theoretical models for investigating these issues. The Grubb and Michelson (1974), Feldstein (1975) and Ladd (1975) studies of these issues, all using Massachusetts data from about 1970, constitute the major policy research contributions to this issue prior to 1978. In general these authors found that expenditures per pupil increased as income increased, as the proportion of the property tax base that was residential decreased, and as the "price" variable (i.e., matching rate) in the formula decreased. Although the three studies did not produce results that were identical, the general trends were similar. All three studies used cross-sectional data from one year only.

In an attempt to determine explicitly the impact of these factors over time in the response of school districts to school finance reforms enacted in the 1970s, two studies have been conducted recently, one by Vincent and Adams (forthcoming) and another by Carroll (forthcoming). Vincent and Adams investigated 1971-72 and 1975-76 data from Minnesota, which enacted a foundation type of school finance reform in 1971, and 1972-73 and 1974-75 data from Colorado, which enacted a guaranteed tax base type of school finance reform in 1973. For both states, Vincent and Adams found, in general, that higher expenditures per pupil were associated with higher household income and districts with greater proportions of commercial, industrial and agricultural property in the tax base.

The Carroll results based on data from Michigan, which passed a basically unrestricted guaranteed tax base formula in 1973, produced expected results for the formula-based price variable (i.e., the higher the price the lower the expenditures). The results also showed income to be positively associated with expenditures and the proxy variables for the percent of the property tax base that is residential to be negatively associated with expenditure levels.

Carroll, as well as Vincent and Adams, indicate that additional empirical work is needed to sort out all the factors influencing school district response to a school finance reform. These studies indicate that wealth neutrality is significantly more complicated than previously considered within school finance circles. But while the results are not yet definitive, they do show that effecting wealth equalization and wealth neutrality in a state school finance structure requires investigation of at least four factors: property wealth, composition of the property tax base, household income and the "price" component of an equalization formula.

Land Value Capitalization. An issue that is new in the school finance debate is capitalization. Capitalization refers to the long-run effect that local taxes or expenditures can have on the prices of land and homes. In general, if taxes increase in one school district or if the quality of education services decrease, the prices of homes may increase, with other things held constant including taxes and spending levels in neighboring districts. Likewise, if taxes decrease or educational services increase, prices may increase. Obviously, in the real world "other things" are seldom constant. Nonetheless, capitalization remains as a spin-off effect of school finance reform and major reforms that significantly change either local tax or spending levels probably, in the long run, will have an effect on the local value of land and homes.

The phenomenon of capitalization has long been discussed by economists. Jensen (1931), as early as 1920, found evidence of land-value capitalization for farm land. In a study in the 1960s, Woodard and Brady (1965) also found evidence of farm land-value capitalization, but found in addition that the value of higher priced land was reduced more than the capitalized value of the tax — while the value of lower priced land was reduced by less than the capitalized value of the tax. Stretched to a school finance analogy, this would mean that capitalization would affect property-rich districts to a greater degree than property-poor districts.

Daicoff (1961) conducted one of the first studies of capitalization that took into effect both the change in taxation level and the change in service levels. He found, contrary to expectations, that property values and tax rates were positively associated, i.e., higher taxes were accompanied by higher price levels. His suggested explanation was that the negative effects of higher taxes were more than compensated by the positive effects of higher service levels. Two other recent studies, however, that controlled for service-level differences did find evidence of classical capitalization. Wicks, Little and Beck (1968) found a capitalization effect in a Montana county that implemented a reassessment program, and Smith (1970) documented similar results for a reassessment program in San Francisco.

In one of the most sophisticated studies of this issue, Oates (1969) used regression analysis in a study of capitalization in New Jersey. He found that, although differentially high local property tax rates were negatively associated with land values, the effect was more than offset when the proceeds of the tax were used to provide increased educational services.

Bish (1975), in a theoretical discussion of this issue related to the effects of school finance reform, suggested that a major reform would have considerable capitalization effects. Newacheck, drawing from the results of related studies, predicted that a school finance reform in California that caused a tax increase on the order of $.70 per hundred dollars of assessed valuation in a particular school district could produce reductions in the value of a $100,000 home of about $3,400. And many persons in California believe that AB 65, the California school finance reform of 1977, will, over the next few years, have major capitalization effects.

In short, one of the new issues emerging in school finance policy discussions is capitalization. By the end of the summer of 1978, a study of potential capitalization effects in California will be completed by ECS. The results, however, will be preliminary because actual data for and effects of the 1977 reform will not be available until the next few years. However, the capitalization phenomenon, while a second-order effect, is one that can be studied in other states and is an issue on which economic analysis should shed more light in the next few years.

Pupil-Need Equalization. As mentioned in the introduction to this booklet, one of the characteristics of school finance reforms in the 1970s has been increased attention to student populations that require extra educational services such as the handicapped, the economically or educationally disadvantaged, the student for whom English is not the dominant language and the student in vocational education programs. At the same time, many school finance analyses ignore these categorical programs. The relationship between the financing of these special services and the general-aid structure, moreover, has been almost totally ignored by the court cases. Nevertheless, local, state and federal revenues for these high-costs services should be as much a part of comprehensive education finance structures and analyses as the normal student and the general-aid formula.

Categorical programs are funded in numerous ways. But, just as many school finance general-aid formulas have been shown to be analytically equivalent, so have the categorical funding mechanisms been shown to be algebraically the same (Bernstein et.al., 1976). One of the emerging issues for the categorical funding mechanisms is the degree to which they, too, provide services that are inequitably related to wealth or income. There is some information that suggests that such inequities occur most noticeably in states in which the overall state role in funding education is low. For example, in

Massachusetts (Wilken and Porter, 1976), Connecticut, Oregon (Vescera, forthcoming), and Colorado (Montoya, forthcoming), the number of special education students served as a percent of total enrollment, special education expenditures per special education student served, and state special education aid per pupil are higher in districts with higher property wealth and income. That is, high-wealth, high-income districts seem to identify more special education need, spend more for those services and receive greater amounts of state support for the services. Particularly the association with higher income is counter to what one would expect and what other research has shown: namely, that the incidence of students needing special services is greater among low-income households.

On the other hand, analyses of special education services in Maryland (Callahan and Wilken, June 1976), Missouri, Florida (Vescera, forthcoming), Washington (Callahan and Wilken, 1975) and Georgia (Wilken and Porter, 1976) show little relationship between the wealth and income characteristics of school districts and the provision of special education resources. For these states, moreover, the overall state role in supporting public education is higher than in Connecticut, Massachusetts and Oregon. Exactly what mechanisms are operating to produce these results have not been explicitly identified at this time. But the results from these eight states suggest that the general state role, the structure of the categorical aid funding system and the equity in the provision of special education services are interacting and producing unanticipated behaviors by school districts. Heightened sensitivity is needed to anticipate these potential behaviors, and additional policy research is needed to insure that unintentional inequities do not occur.

A related issue for such additional policy analysis is the degree to which the distribution of categorical-aid dollars enhances or undermines the overall equalization objectives of the general-aid formula. Put another way, even though most categorical programs in a state are not funded with equalization formulas, there is no strong argument for not using equalization schemes unless the state fully funds the service, which is true in only a few instances. Since equalization formulas are not used, there is a possibility (and in some states a reality) that the unequalizing distribution of categorical aid can offset the equalization gains made by the general-aid formula. Vescera (forthcoming) has demonstrated that this can happen in his analysis of the equalization thrust of state aid for education of the handicapped but has shown that both federal compensatory education aid under Title I of the Elementary and Secondary Education Act and state compensatory education programs enhance equalization under both definitions of equity, and also have an income redistribution

effect. These results were also found in the NIE study of the distribution of Title I aid (Troob, 1977).

It should be noted, though, that if the state fully funds the total excess costs of providing categorical services the equalization issue with respect to categorical aid distributions is no longer an issue of concern. However, since few states fully fund 100 percent of excess costs, higher-wealth districts are more easily able to raise their share than lower-wealth districts, and the interaction of the general aid and categorical aid programs then needs to be scrutinized more closely.

The general points to be made in this section on pupil-need equalization are that:

1) Education finance policy includes more than the general-aid formula, and scrutiny should be given to the distribution of categorical-aid dollars as well as general-aid dollars.

2) The fiscal equity issue with respect to categorical-aid funds is especially acute for states in which the state role in financing elementary and secondary education is low.

3) Equalization objectives of a state should be assessed both in and of themselves as well as the degree to which they are affected by the allocation of categorical-aid dollars.

Cost Equalization. Policy makers in all states know that the purchasing power of the education dollar varies, in some cases dramatically, across school districts in a state. In the past few years, there has been increased interest in developing indices that a state could use to adjust the equalization formula to account for these differences in the costs of providing education services. At the same time, there have been a number of different attempts to develop such indices, some more substantively grounded than others.

The most crude attempts to develop costs indices have been those that simply make comparisons of expenditure differences across school districts. Such attempts are seriously flawed, however, because expenditure differences are dramatically different from cost differences. Differences in education expenditures are caused by two factors: differences in the quality or level of services provided and differences in the costs of providing those services. The former are

within the control of local school districts, i.e., except where explicitly limited by state law, local districts are able to choose the level of education services they wish to provide. Differences in education costs, however, are outside the control of local districts and are caused by factors such as geographical location, characteristics of the student body and other demographic characteristics of the school district.

The development of indices that indicate the differences in education costs requires a rigorous economic model and sophisticated statistical techniques that can separate the controllable from the uncontrollable variables and, holding constant the level or quality of services provided, base the indices on the uncontrollable variables. Cost-of-education indices based on this economic methodology are also different from, as well as more accurate than, cost-of-living indices. Therefore, the market basket of goods that are based on household expenditure patterns and used to develop cost-of-living indices is different from the market basket of goods that school districts must purchase to provide education services.

Data from four states have been used to develop cost indices using economic modeling and regression analysis. Brazer and Anderson (1976) developed cost indices for school districts in Michigan; Frey (1976) has done similar work for New Jersey; Grubb and Hyman (1976) for California; and Kenny, Denslow and Goffman (1976) for Florida. These studies have all attempted to predict average teacher salaries among districts and then have developed the indices on the bases of the uncontrollable factors accounting for differences in district average teacher salaries.

Chambers, Odden and Vincent (1976) and, more recently, Chambers (1978) have used a slightly different technique. These studies used samples of individual teachers, rather than district averages, to produce cost indices for the state of Missouri. Such a methodology allows one to pick up both inter- and intra-district factors that may account for salary differences and is based on the fairly well-developed hedonic price methodology that has been used in other economic research. These authors are currently involved in a similar project in California that will include the development of teacher and administrator cost indices, an index of transportation costs (which was also done in the second Missouri study), and an energy or plant operations cost index. In addition, the authors plan to use the indices developed in an analysis of school district response to the California aid formula and the changes in it that have been enacted over the past five years.

In short, much work has been done on developing cost-of-education indices and, although the economic methodology that has been used by a few states is somewhat complicated, it is also probably the most defensible and accurate.

The effect of using cost indices, however, is not a neutral one. Metropolitan districts in general have above-average indices while rural districts have below-average indices. Thus, all other things being equal, the use of a cost-of-education index will result in relatively greater amounts of aid flowing to metropolitan districts as compared to nonmetropolitan districts. In almost every research report, moreover, the highest-cost indices have been found to occur in the central-city school districts thus both substantiating the fact that costs are indeed higher in the cities and justifying the use of cost indices to compensate city school districts for the lower purchasing power of their funds.

Intra-district Equalization. School finance has for the most part concerned itself with inter-district resource allocation issues. Nevertheless there have been both litigation and policy research related to intra-district resource distribution issues. The most well-known district struggling with these issues is the Washington, D.C., district, which came under court order to allocate dollars per pupil so the differences among the schools within the district were within a five-percent band about the average school. Both court briefs and subsequent research had shown that the inequality of resource distribution was closely related to sociodemographic characteristics of the schools, with the predominantly black, low-income schools receiving the lowest amounts per pupil (Hobson v. Hansen, 1971).

Other research on intra-district resource allocation has been scant. Attempts were made to conduct such analyses for the New York City school district but the results have not been widely disseminated. Vescera (forthcoming), however, has reported on an extensive analysis of the inequality of expenditures per pupil among schools within the Los Angeles unified school district. Although finding significant differences in expenditures per pupil among schools, the differences were not systematically related to achievement levels, economic differences nor racial differences.

The issue of intra-district resource distribution is one that, while not the top agenda item in any state, is being raised by a number of policy makers at the state and local levels. Although predictions are hazardous in the public policy arena, one could expect that this issue

will be given more attention in the near future, especially for large urban districts.

The Politics of Education

Although many of the substantive issues surrounding school finance are economic, education finance policy is made by state legislators who must allocate the scarce resources of the states among numerous functional areas. In this light, it is important to note the changes that have occurred and are occurring in the politics of public education policy making. No longer do state legislators rely solely on the education lobby for advice on the policy changes that need to be enacted each year. The politics of education is becoming increasingly complicated and fragmented with competition both within the education circle and between educators and noneducation groups that are demanding other governmental services.

The new complexities in the politics of education can be viewed in a number of different ways (Kelly, 1978). First, there is greater fiscal conflict between local school districts and other local governments concerning scarce local revenues and intergovernmental aid. Second, there is a declining percentage of taxpayers willing to pay high education taxes. Third, teacher groups and parent groups are no longer aligned as closely as they used to be. Both the second and third factors result in an erosion of political support for public education. Fourth, courts, legislatures and governors increasingly involve themselves in the problems of school financing. Fifth, the urban suburban cleavages have broadened, causing additional fragmentation in the general support for education. Six, two competitive elements exist within the education sector: first, a horizontal competition between general aid and the host of categorical, targeted-aid programs, and second, a vertical competition between elementary and secondary education and the postsecondary sector.

Within this fragmented and complex vortex of political pressures, school finance reforms are enacted by state legislators. Yet, there is little research of a substantive, political science, public policy-making nature conducted that sheds much light on the politics of school finance reform. Numerous descriptive accounts of the school finance reform events in a number of states have been reported. Although informative, these case history stories do not allow for rigorous comparisons across states. Berke, Shalala and Williams (1976) have made the best attempt to generalize both across states as well as across methods for effecting reform. They showed that reform at-

tempts via referenda were considerably less successful than legislative attempts and identified the following characteristics of successful legislative efforts to change school finance policies:

1) A two- to four-year time period of analysis and legislative debate.

2) Occurrence of external events such as a court case, a governor's commission or joint legislative study.

3) Strong political leadership from either the legislative or executive branch.

4) A reform package, including noneducational aid, of "leveling up" in which all districts receive something.

5) Funds to finance the reform, either from a revenue surplus or an increase in taxes.

While these generalizations are useful, what is needed, especially in light of the rapidly changing political arena, is a cross-state study of the politics of school finance reform that is set within some public policy-making and/or political science constructs so the results would be (1) useful to policy makers in nonreform states, (2) helpful in explaining the elements of reform apart from individual state characteristics and (3) a contribution to the developing constructs of the politics of education. As a first cut at this task, ECS will be publishing in 1978 a booklet on the politics of school finance reform in seven states.

Changing Societal Demographics

Important demographic changes in the American society are occurring that have important implications for school financing policies. The first is declining enrollments that are expected to persist through the early 1980s. The impact of such declines, however, will be felt through the 1990s in the nation's high schools and postsecondary institutions. A second factor is the increasing suburbanization across the country, accompanied both by increasing racial and economic segregation including the decline of many core cities. Related to this phenomenon is the growth and affluence of the "sunbelt" and decline of the Northeast. Another factor, and one that has received little attention, is the growth of small, nonmetropolitan towns reflecting the demise of the rural-urban migration and the beginnings of what

is now a net urban-rural population shift. Another factor is the changing age composition of the population, with greater percentages of persons over 65 creating increased demands for services for the elderly.

These demographic changes affect education finance in many ways. The drop in the youth population has been followed by increased demands for services for senior citizens and relatively less concern for education. Continued suburbanization and interregional racial and economic fragmentation have heightened class, ethnic and economic conflict and made the school management of these problems more difficult. Within the education sector, the fact that the management of retrenchment requires greater skill and allows for a smaller margin of error has not really been acknowledged. Inefficiencies, misunderstandings and low teacher morale have occurred.

In short, although much has been written on the impacts the changes in the country's demographics are having on education policy making, there still exists precious little substantive policy analysis of what the impacts actually are and what policy makers can do about them, although the previous section indicates some of the impacts on the politics of education. The most comprehensive set of research projects on the impacts of declining enrollments were conducted under NIE sponsorship and have been compiled in a book entitled, *Declining Enrollments: The Challenge of the Coming Decade*, Susan Abramowitz and Stuart Rosenfeld, editors. The studies in this book cover such topics as the extent and nature of changing demographics and the impact on cities, the fiscal and programmatic impacts of declining enrollments, the types of legislation used to ease fiscal burdens caused by decline, and theoretical and local school district concerns related to the management of decline, including the impact of retrenchment on the employment of women and minorities. As a primer on many issues related to declining enrollments, this book is invaluable.

One of the other growing concerns surrounding the economic impacts of enrollment declines is the teacher-aging problem, i.e., the fact that the limited labor market for new teachers is resulting in a teaching force that is older, more expensive because greater numbers of teachers are in the "lower right hand corner" of the salary schedule, and, because of seniority and tenure laws, more constraining for school districts with respect to personnel allocation. These facts are in no way meant as a criticism of teachers or teacher groups. They are simply a result of a decrease in demand for teachers and

the concommitant effects, economic as well as political, on local school districts.

The issue is, however, being given some attention in Minnesota by a study being conducted by William Wilken of the National Conference of State Legislatures and in California by Jay Chambers under a Ford Foundation grant. The Chambers study is designed explicitly to uncover (1) the direct financial bind that changes in the demography of the education work force place on both local school districts and the state, (2) the implications of the changes on the equity of the distribution of education resources, (3) the potential long-term impacts on the funding of teacher retirement systems, and (4) the effect on the changing demand for various kinds of teachers.

Although overall enrollment declines may stop in the early 1980s, they will continue to exist in many states, have already affected high schools in many districts and are just beginning to hit the colleges and universities. The management of an education enterprise in a time of decline will continue as a problem in many pockets of this country for some time. Additional policy research is needed at a number of levels both to assist local districts cope with the problems created by the decline and to guide state legislators as they seek to enact policies that help ease the burden of decline and that require hard decisions when they are merited.

Impacts of School Finance Reforms

School finance is like many other public policy issues in that, while much research is conducted describing the nature of the problem, little attention is given to assessing the results of a policy change, until problems in it arise at some future date. Although some attention has been given to determining the impacts of school finance reforms that have been implemented, much more is needed. At this time, the National Conference of State Legislatures' legislative handbook (Callahan and Wilken, 1976) is still the most extensive compendium on the fiscal impacts of school finance reforms. Carroll (forthcoming) is currently working on a study of the fiscal results of reform in California, Florida, Kansas, Michigan and New Mexico. Diacoff (1977) and Brazer and Anderson (1977) have also done empirical work on the fiscal impacts of reform in Michigan and Kansas. And Leppert and Routh (forthcoming) are studying the effects of the implementation of pupil-weighting systems in Florida, New Mexico and Utah.

Although based on the stratefied sample school district data from the Elementary and Secondary General Information Survey (ELSEGIS) for 1975-76 conducted by the National Center for Education Statistics, which gives biased results for individual states, the September 1977 Interim Report of the Assistant Secretary for Policy and Evaluation at HEW entitled "School Finance in the Seventies: Achievements and Failures," concludes that few school finance reforms have been effective in reducing expenditure-per-pupil gaps among districts within a state (Brown, Ginsberg, Killalea and Tron, 1977). For those expecting spending gaps to have decreased such findings are a disappointment. As mentioned earlier, however, fiscal neutrality programs are not designed to close spending differences, although many policy makers believed that such would be the case. Since the data sample on which this study is based gives biased results for individual states, the conclusions of the study must be treated with caution until the study is replicated with an unbiased data set.

Illinois has made the strongest state commitment to evaluating its school finance reform by mandating that a fiscal evaluation be conducted each year by the Center for the Study of Educational Finance at Illinois State University (Hickrod, et.al., 1976). Such evaluations need not be expensive, and annual monitoring of the effects of a state's school finance structure would not only be helpful for policy makers within an individual state, but the results could be compiled and generalized to provide useful information for policy makers in all states, as well as the federal government.

A second issue related to the results of school finance reforms concerns the programmatic changes that occur as a result of reform. In other words, how have new dollars been used at the local level? The initial studies on this topic found that about 80 percent of each new state dollar was used to provide additional services for students; although about 20 percent of each new dollar was used to raise teachers' salaries, the raises were in general less than those of other districts in the region (Kirst, 1976; Barro and Carroll, 1975).

A multistate study conducted by the Stanford Research Institute investigated the use of school finance reform dollars in a number of districts in four states: California, Florida, Kansas and Michigan. The findings, to be published by the end of the summer, will include the following:

1) The extent to which new dollars have been used, in the main, to hire additional teachers and administrators, or to raise salaries.

2) The type of new programs added by low-wealth districts, as to whether they are innovative or similar to those already enjoyed by high-wealth districts.

3) Evidence for "entrepreneurial" activity in high-wealth districts, i.e., the degree to which such districts began applying for education grant programs, shifted items from the school budget to the municipal budget and made greater use of fees, activities that tend to offset somewhat the effects of the new dollars in low-wealth districts.

A third concern surrounding the increasing state role in financing public education is whether control of the education process will swing to the state level as well. Although past research has shown that there is no systematic relationship between state control and the level of state aid (Levin, 1972; Fuhrman, 1974), state and federal legislation, regulations and guidelines have produced a general shift in the past decade toward more centralization in the running of schools. This shift has been of concern to many people.

As an attempt to counter this shift, Florida and California enacted provisions in their school finance reforms that encouraged school districts to decentralize many planning, budgeting and programmatic decisions to the local school site level. California, in fact, now provides an additional $110 per pupil for school plans that are approved by regional panels to provide innovative education programs. A soon-to-be-published report of the effects of school site budgeting (National Urban Coalition, 1978) funded by NIE and conducted through the National Urban Coalition, found that:

1) Management and budgeting practices underwent significant changes, with principals being given discretion over the use of funds both within and among expenditure categories.

2) Roles and functions of administrators and teachers changed, with the responsibility of central office staff shifting from budgeting to planning, evaluation and technical assistance to school site managers and with building staff being more concerned with flexibility in staffing and programming.

3) Successful implementation of school site budgeting required careful planning and preparation, extensive in-service training and a number of years for phasing in the entire shift in responsibilities.

A last issue that can be discussed under this section is a second-order effect, like land-value capitalization, and concerns the impact of reforms on the residential locational decisions of households. Families choose to live in localities for a number of reasons including the local tax burden, the general cost of living in the area and the set of local government services provided, including education services. Substantial changes in these variables, which could result from a school finance reform, could produce changes in the residential location decisions households make and cause migrations, over time, of persons from one district to another. Such changes could exacerbate or diminish the socioeconomic fragmentation that already exists in many regions of many states, especially metropolitan areas. This issue is just beginning to receive attention in school finance circles.

The Children's Time Study Project, being conducted by Charles Benson at the University of California at Berkeley, is investigating some aspects of this issue in the Oakland metropolitan area; a book based on the study's results entitled *The Serious Business of Growing Up in America* will be available by the end of 1978. The study is unique in many ways because a sample of over 700 *individual* children is being followed. The study is looking at how home conditions, such as parental aspirations, expectations and locational decisions, family structure in terms of one or two parent, student experiences and activities, and quality of education services interact to affect student education achievement. The study hopes to be able to sort out the relative effects of school versus nonschool variables on student achievement thereby providing insight into how scarce government dollars can be split between school finance reform and other non-education functions to maximize the impact on pupil learning.

Collective Bargaining and Teacher Retirement Systems

Collective bargaining seems to generate much discussion but not much analysis. A description of collective bargaining structures in education is available in an ECS booklet, *76 Update: Collective Bargaining in Education*, which may be updated again in 1978. The primary economic issue for collective bargaining centers on whether it increases the salaries of teachers and other education personnel and, if so, to what degree. Most of the economic research has shown the existence of collective bargaining to have small effects on school budgets, causing less than a five-percent increase, other things held constant (Baird and Landon, 1972; Lipsky and Droting, 1973; Thornton, 1971). Chambers (December 1976), however, using individual teachers as the unit of analysis rather than district averages, has shown the impact to be substantially larger, on the order of 15 per-

cent. The Chambers' work also shows that the economic impact of collective bargaining is regional in nature, i.e., a district that does not engage in collective bargaining but is located in a region that, in general, does bargain, is affected by the higher salary demands to a similar degree as the bargaining districts.

Anthony Pascal and Lorraine McDonnel (forthcoming), through Rand's Policy Center for Education Finance and Governance, are engaged in a study of the ways in which collective bargaining by teachers influences the environment of the classroom and the organization of the school. This research emphasizes bargaining outcomes other than wages and fringes, such as hours, working conditions, job security and teacher power, over curriculum. The National Institute of Education and the Office of the Assistant Secretary of Education, DHEW, are sponsoring the study.

The first phase of the study consisted of the analysis of provisions appearing in collective bargaining agreements obtained in 1970 and in 1975 in about 150 of the larger school districts (enrollments exceeding 12,000) across the country. In phase two, interviews will be conducted with negotiators, administrators, teachers and community representatives in 15 of these same districts. The fieldwork phase of the study will focus on bargaining strategies, institutionalization of teacher power and bypass mechanisms. A final report is due in the fall of 1978.

One of the most important changes that may be occurring on the collective bargaining front is the increasing sophistication of teachers in their knowledge of the issues related to school finance. Teacher groups are fast becoming aware that what happens in the state capital on the school finance laws affects their classroom as well as salary situation. Under a grant from NIE, the American Federation of Teachers has contracted with the Education Policy Research Institute of the Educational Testing Service to train teacher leaders in a number of states in the general issues related to education finance as well as the specifics of their particular state's school funding structure. This project is developing materials that can be used for training teacher leaders in all states. As teachers become more knowledgeable about school finance the sophistication of the teacher lobby in the capital will be enhanced. It will be interesting to follow the organizational impacts of this training because teachers represent wealthy and poor school districts and it may be difficult for teacher groups, as organizations, to take specific positions on school finance legislation, unless the teacher members come from districts that are similarly impacted.

An additional teacher-related fiscal issue that should be, but in general never has been, part of school finance is the funding of teacher retirement systems. Not only has there been little written on this topic but also the data to conduct empirical policy analysis on the issues is difficult to find. Although dubbed "financial time bombs" recently by a U.S. Senator, the facts to support or rebut such a characterization of teacher pension plans simply do not exist. Bernard Jump (1977) has done some of the pioneering work on teacher retirement systems; Tilove (1975) has written an excellent text on public retirement systems in general.

There are numerous issues that need to be considered in assessing the financial health of teacher retirement funds. The first concerns the governmental level at which the funds are operated and funded. Most teacher retirement systems are funded and operated locally; other public employee pension systems are operated at the state level. On the whole, state operated funds seem to fare better: record keeping is more extensive, funding is more sound and investing strategies have produced greater returns.

A second issue concerns the integration of teacher retirement systems (or any state and local public pension fund) with the federal Social Security system. In the 37 states with integrated systems, retirement levels equal, on an average, 70 percent of spendable income before retirement. In the remaining 13 states, the combination of teacher retirement system pensions with social security often produces a retirement salary greater than pre-retirement income. This clearly makes no sense. Although the structural problem of integrating the two systems cannot be solved retroactively, chances are great that Congress will require state and local government participation in Social Security, thus rendering the integration issue moot in states not now participating.

The third issue concerning teacher retirement systems relates to how the adequacy of its funding can be assessed. Since there are no commonly accepted standards in actuarial science, it is necessary for a policy maker to examine the assumptions used in determining the funding of pension systems. The two critical assumptions are those pertaining to: 1) future salary growth and 2) expected earnings on investments. The former requires 20-30-year salary projections, which must be done on the basis of a series of assumptions on inflation and the size of the employment force. For the latter, the common error is an overly optimistic assumption on annual earnings. What is needed is a series of simulations of funding needs for a pension system based on alternative assumptions. This would provide the

policy maker with a set of alternatives on which a more reasonable decision could be reached in terms of providing an adequate funding level.

As states continue to examine fiscal issues related to education, however, it is undoubtedly time to include the financial, including the actuarial, aspects of teacher retirement systems on their agendas. States need neither pension fund bombshells nor the need to break promises to the retired; attention to the structures and cost of retirement programs could save a state from facing either of these two undesirable alternatives.

Taxpayer Revolt: Fantasy or Fact

Many people across the country, including state policy makers, see school finance, the property tax and the taxpayers' revolt as naturally intertwined. Budgets are voted down in the state of New York, excess levy referendums are defeated in Oregon and Washington, Maine voters eliminate the uniform property tax and a property tax limitation is, again, put on the ballot in California. Reporters and the public zero in on these examples and claim a property taxpayers' revolt has begun that threatens the fiscal stability of schools.

Is there a property taxpayers' revolt?

It is difficult to answer this question. There is great concern among taxpayers across the country with increasing tax bills, not only local property taxes, but also state income and sales taxes, and federal income and social security taxes. Any testing of the nation indicates clearly that the country is experiencing a fiscally conservative mood, brought about largely by recent concurrent inflation and recession in the national economy. This double whammy has been exacerbated in many local communities by rapid increases in the value of residential property, with increases equaling 10-15 percent in many growing communities. These value increases often result in increases in assessed valuations that push the local property tax up. Although a truism by now, the local property tax, and especially the school portion of it, is often the only tax "put to the voters" and thus bears the wrath of the taxpayer over any taxation situation.

It seems too dramatic to characterize these events as a national property taxpayers' revolt. There is however, a growing interest in

controlling government expenditures at all levels — local, state and federal. For example, in the November 1976 elections, there were ballots in numerous states related to controlling either the expenditure growth of state governments or the total tax burden as a percentage of statewide personal income. Although most of these referendums were defeated, many state legislatures have enacted limitations on expenditure and tax growth. For example, local government expenditure increases are capped at five percent in New Jersey. Wisconsin recently also mandated limitations on increases in the expenditures of local governments. Colorado capped the increase of state government expenditures at seven percent, mandating that additional state revenues be used for property tax relief. Similar limitations have been enacted or are being debated in many states. "Jarvis-Gann" property tax limitations may occur in many states and, if passed, make school finance a new kind of ball-game.

In a sense, school finance has taken the lead in this new development of expenditure controls and taxation limits. One of the primary characteristics of the school finance reform enacted in the 1970s has been the simultaneous use of expenditure controls, tax limits, state aid caps and other mechanisms to control expenditure increases and stabilize the local property tax. The specifics of the different state mechanisms have been reviewed by both Chattanbach, et.al., (1975) and most recently by Tron (1977) and Callahan and Wilken (August, 1977).

Apart from the taxpayer revolt concern are still the other taxation issues related to school finance structures. Although the debate on the incidence of the property tax incidence continues, the most recent evidence indicates that whatever one's theoretical stance, the property tax imposes a greater percentage burden on low-income households than on high-income households (Odden and Vincent, 1976). McLure (1977), moreover, has written that whether property tax burdens tend to be shifted and regressive in incidence (the "conventional" view) or borne mainly by property owners and progressive in incidence (the "new" view) depends on whether the tax is a local or national tax, the former resulting in regressive and the latter in progressive incidence patterns. Since the tax is local in nature, McLure suggests that the "new" view is largely irrelevant to the policy questions related to the incidence of the property tax as it is actually used in this country.

State policy makers continue to view the property tax as regressive in nature by enacting and expanding state-financed circuit breaker programs of property tax relief that protect low-income households,

especially those in wealthy school districts, from property tax overburdens. The policy question that links school finance to expanded circuit breaker programs, however, is how such programs interact with the school finance system. For example, in Michigan and Wisconsin, both of which have expanded circuit breaker programs and guaranteed yield school finance programs, does the circuit breaker program allow certain districts to increase more easily their property tax rates because a significant number of households face limited property tax burdens? Although mentioned as a concern by some policy makers, this issue has not been the subject of a policy analysis study. This is one area that should receive some attention in the next few years.

Finally, the equity and incidence pattern of all state taxes is of concern for school finance policy makers concerned with the taxation side as well as the distribution side of school finance structures. In this light, Phares (1973) is in the process of updating his study of the tax system in each of the 50 states. His revised book should provide a wealth of new information for state tax specialists by not only updating and summarizing the most current theoretical knowledge on tax incidence but also by mapping the incidence pattern of the tax systems in the 50 states for the 1976 fiscal year.

Low-Income and Minority Students and Urban School Finance

Simple school finance reform laws providing equalization based only on assessed valuation of property per pupil can offset gains made in providing needed education services to low-income and/or minority students as well as worsen the fiscal plight of many central-city school districts. Although the issues of the impact of school finance structures on low-income and minority students could be separated from the impact on urban districts, the two issues are also inexorably intertwined. A recent NCSL study (Callahan, et.al., September 1977) has shown that, particularly for cities in the Northeast and Midwest, the population shifts that have occurred in the past decade have left city school districts with a student body that is increasingly minority, lower income and with concentrations of students from Spanish-speaking families. At the same time the property tax bases have been stagnant or declining. The result has been to increase the fiscal squeeze on city districts because, although total numbers of students have dropped, the remaining population is characterized by concentrations of students needing higher-cost education services such as bilingual education, compensatory education or education for the handicapped.

Not all minority and low-income students are found in city school districts, however. And the residence of low-income and minority students and the impacts of school finance structures on them varies significantly across states as found in an NIE-funded study of these issues, which will be published late in 1978. In Colorado, for example, the majority of black students were found to live in the urban districts, primarily in Denver, which is high in property wealth, while students from Spanish-speaking backgrounds were divided in essentially a bimodal distribution, between the wealthier urban districts and very poor rural areas. Low-income students, moreover, had different locational characteristics. Similarly, in California it was found that black students received the largest average education expenditures, due primarily to the urban factors in the California compensatory education program and the concentration of black students in the urban centers. Low-income concentration in California was found to be generally unrelated to low-wealth concentration. The NIE study also includes the states of Texas, New Mexico and New Jersey. The results indicate that simple equalization formulas based on property wealth deal with only one issue — namely low wealth — and state policy makers must be aware that additional factors must be added to the basic formula to insure that low-income and minority children are not unexpectedly disadvantaged by a new equalization program.

While the NIE study also shows for the states studied that minority and low-income children are most highly concentrated in city school districts, city districts also face other education pressures that push up the level at which they must fund their public schools. Although much has been written in the past on the municipal overburden issue (i.e., the drain on the education budget by the many noneducational services cities are required to provide), it is perhaps the education overburden issue that is as pressing, is an argument that is accepted more readily politically and is a problem for which the data are very compelling. Vincent (1977) in a paper on urban economics given to the most recent Committee on Taxation, Resources and Economic Development (TRED) Conference delineates these education overburden elements:

1) Declining or stagnant fiscal capacity to fund services.

2) High concentration of low-income students.

3) Declining enrollments causing high personnel costs and excess physical capacity.

4) Higher concentration of special-need students.

5) Diseconomies of scale, i.e., a very large number of students.

6) High relative costs of attracting education personnel to the school system.

Similar concerns were raised by the five central cities that intervened in the *Levittown* v. *Nyquist* school finance court case in New York.

These issues again reveal the complexities of designing fair funding structures for public schools. In this light the push to eliminate wealth-related expenditure disparities in a state's public school finance structure should be taken as an opportunity, as it was in California during the 1977 legislative session, to develop a comprehensive state public education policy, including both categorical and general aid programs and covering the financing of the programs as well as the governance. Comprehensive school finance reforms should help cities, low-income and minority students, special populations requiring higher-cost education services and students in low-wealth school districts, as well as all students.

Another population that has not received much attention in school finance circles are American Indian students, both those attending public schools and those attending schools run by the Bureau of Indian Affairs (BIA) or tribally controlled contract schools. The BIA has come under severe criticism recently for major problems in delivering adequate and reliable funding for Indian services, especially education (General Accounting Office, 1977; American Indian Policy Review Commission, 1977). In a soon-to-be-published report of the inequalities in financing BIA schools over the past four years, Odden (forthcoming) finds substantial unjustified inequality of resource distribution among the many schools run and/or financed by the BIA. Severe problems have also been noted in the financing of education services for Indian students attending public schools. Many public school systems with concentrations of Indian students are both property and income poor, receive less than adequate state support and use Johnson-O'Malley Indian Education funds for purposes different from those for which they were appropriated (National Indian Education Association, 1975; Indian Education Training, Inc., 1975). Improving the adequacy and equity of education financing for Indian students is not only a fiscal problem but also a complicated intergovernmental problem since while education is primarily a state function, U.S. Indian tribes have a unique, quasi-independent status with respect to the federal government. The point is simply that there are hundreds of thousands of Indian students

receiving education services in this country and the inequalities and inequities in the provision of and financing of these services need to be redressed.

The Federal Role in School Finance

In the very short run, the general nature of the federal role in school finance will not change: it will remain as primarily support of (1) special student populations, including the handicapped, the economically disadvantaged, the bilingual and the vocational student, as well as (2) basic and applied research on many of the unsolved issues related to education finance.

Although many would like to see the federal government appropriate the funds for the current federal education programs to the full authorized level, in a sense the major problems with the federal role in the past has been in the rules and regulations governing the use of federal dollars, especially in those education areas in which states had developed programs to complement or augment the federal objectives. The clearest example of frictions that developed concerns the antisupplant regulation for Title I of ESEA, which, as was interpreted both by the U.S. Office of Education and the courts, prohibited states from enacting compensatory education programs designed to serve Title I — eligible students who were unserved with federal dollars because of underfunding of Title I by the Congress.

One of the brightest pictures on the national scene appears to be a strong recognition of these kinds of problems and a real attempt by the new administration to forge a new state/federal partnership that facilitates the complementary operation, perhaps even joint operation, of federal and state programs designed for the same purpose. Although the jury is still out on this issue, states should be able to determine by the end of 1978 how lasting this apparent new attitude is on the part of the federal government. The changes in the reauthorization of ESEA, especially Title I, and the attempts to work with the states in implementing P.L. 94-142 (The Education for all Handicapped Children Act) will be the most obvious tests of the degree to which a new federal/state relationship can be implemented.

As noted in Section I, there may also be increased attention by the Congress in a specific federal role to assist the states in school finance equalization. For the past two years, this interest has been manifested through the dissemination of Section 842 funds to assist states in the research and development of better equalization sys-

tems. In September of 1977, two days of hearings were held on H.R. 1138, a bill introduced by the Honorable Carl D. Perkins, chairman of the U.S. House Committee on Education and Labor, which was designed to help states in equalizing educational opportunities. The thrust of most of the testimony was that it was probably the right time to begin raising the issue of how the federal government could implement an equalization role but that, before a specific law or program was enacted, some hard policy analysis would need to be made to map out the status of equalization among and within the states as the basis on which any federal program would be developed. At this time it appears that such a study may be conducted. If such a study begins, the research agenda that is set will, for the most part, proscribe what issues will be investigated and therefore what issues will be considered in developing a federal equalization role. States are encouraged to make their federal representatives aware of what they feel should be on such a research agenda.

State Analytic Tools and Research Capabilities in School Finance

School finance computer simulations have received much attention in the past few years. Numerous states and many organizations have developed the capacity to simulate and test a variety of different school finance structures. A description and "midterm" evaluation of a number of computer simulations is available in a recent ECS publication entitled, *Computer Simulations in School Finance Reform* (1978). The simulations discussed in this booklet include the one developed by the National Education Finance Project; the School Finance Equalization Management System model developed by the Education Policy Research Institute of the Education Testing Service; the simulations designed by the ECS Education Finance Center; the simulations developed by Professor Walter Garms for the states of Oregon and Florida; and a number of simulations developed by individual states, including Florida and California.

After assessing some of the technical aspects and uses of simulations, the booklet comes to two conclusions. First, it is difficult to tell at this point how simulations have affected either specific school finance policies or the policy-making process itself. Second, the utility of simulations depends largely on the research knowledge on which the simulation is developed. For example, though it is simple to design a simulation with the capability of using a cost-of-education index, such an option is useless unless the hard research of developing district cost indices is undertaken by a state.

In this light, it is worthwhile noting a recent article by Sally Pancrazio (1978), the Illinois Office of Education, concerning state education agencies as research arenas. The author argues convincingly that a better nexus must be developed between the university-based educational research community and the research sections of state departments of education, acknowledging that one difference in perspective is the basic research orientation of the former and the applied orientation of the latter. Especially in terms of accessible data bases and the opportunity both to respond to and help influence the education policy concerns raised by state policy makers, state departments of education are ideally situated. In spite of the author's strong arguments, however, it would not be unfair to suggest that the legislature and executive parts of state governments have questioned the ability of state departments to respond to the research possibilities with which they are presented. As a way to resolve this debate, one can hope that a rigorous evaluation will be undertaken on the use of the almost $13 million in federal Section 842 funds that have been allocated, except in a few instances, to state departments of education. That amount of money is one of the largest ever appropriated for applied education finance research; by the end of 1978, after the state plans have been presented, the results of the use of those funds should be known.

Legislative staff should also be encouraged to tap the substantial resources that exist at state academic institutions. By forging stronger links between policy makers and academics we might increase the practicality of academic work while simultaneously expanding the information base that serves as the foundation of policy decisions.

III. Prospects For 1978

ALABAMA — The legislature is looking at the use of the state's educational fund. Repeal of the utility tax, one of the three major revenue sources for funding the education fund is expected to come up. The 842 study is attempting to define adequate, as opposed to minimum, education.

ALASKA — Three studies were conducted in 1977: one on a state role for school construction, one on bilingual education and one a pupil-weighted system for state aid for special education. Two bills based on the results of the first two studies will be placed on the legislature's calendar.

ARIZONA — Property tax relief is still a priority issue. The legislature will debate a bill designed to spread or shift the burden of property tax to help reduce the burden of tax on homeowners. An 842 study is updating and researching a state equalization plan that includes reassessing the elements of basic education, developing information to define the present and future equalization factors, developing simulation models to collect and assess characteristics of student populations, and merging economic factors with student characteristics.

ARKANSAS — The legislature does not meet in 1978, but an interim committee on school finance, with Section 842 funds, is analyzing the school finance and education tax structure in Arkansas. The Institute for Educational Finance is conducting the study.

CALIFORNIA — The *Serrano* plaintiffs are returning to court claiming that AB 65 does not meet the court's mandate. There is likely to be either negotiations to adjust the bill to meet the court standards or a hearing on plaintiff's contentions. Results of the department's 842 study on cost-of-education indices, fiscal capacity of school districts, land-value capitalization and the burden by income class of the education tax structure should be available by midsummer.

COLORADO — Colorado is conducting a school finance study that will examine alternative measures of school district level of support, alternative means for determining state and local sharing of the level of support, and alternative state revenue sources for support of education. Expectation is that the *Lujan* case will go to trial late in the year.

CONNECTICUT — New legislation, responding to Horton, may be delayed until 1979, but will be based on the results of the Section 842 study that is looking at the following issues: 1) school finance and equal educational opportunity needs; 2) the fiscal impact of the present GTB grant program; 3) the timing of the GTB grant payments and its relation to the local district budgetary process; 4) assessment of the present property tax assessment techniques; 5) assessment of inequity in the major categorical state grants; 6) assessment of the impact of the major federal grants. The study also hopes to investigate the possibility of using a pupil-weighting system, to investigate the possibility of building a cost-of-education index, to investigate the problem of municipal overburden, to generate long-range plans to increase the state's share of educational expenditures, to research cost/quality and cost/benefit relationships, and to develop a more effective information dissemination program. A computerized system for further planning and research in the areas of school finance and equal opportunity will also be developed.

DELAWARE — This state is not expecting any major school finance legislation this year. The University of Delaware is conducting the 842 study and specifically looking at equalization of property assessments throughout the state.

FLORIDA — The legislature does not meet until April, but at that time they expect to consider a bill to increase the number of exceptional children programs and a bill to change the pupil weightings for exceptional education. Florida has an 842 study that covers the following issues: 1) growth and stability characteristics of selected revenue sources; 2) funding of school transportation; 3) alternative approaches for the equitable distribution of funds to school districts; 4) implications of changes in funding pattern and program influences for the governance and control of educational enterprises; 5) preliminary forecasts for 1977-78 of FTEs at K-12 in the public schools; 6) evolution of the equalization of educational opportunity in Florida, 1926-1976; 7) costs and effectiveness of technological applications in education; 8) methodology and data sources for analysis of educational benefits; 9) computer simulation; 10) long-range development of the computer simulation; 11) evaluation of education enrollment projection methods currently used in Florida; 12) summary of data and methodology used in preparing enrollment projections; 13) econometric models for educational planning; 14) alternative population projections in school-age categories for the state of Florida, 1975-1990; 15) enrollment projection; 16) lifetime earning trends; 17) criteria for selection of states to which Florida's education system is to be compared; 18) an inventory of the tax policy in Florida.

Presently two tax studies are underway; both studies are designed to address the exportability of Florida's taxes and the relative equity of Florida's property taxes.

GEORGIA — Though not expecting any major legislation this year, the state department of education is conducting an 842 equalization study that has been contracted to the University of Georgia. The study focuses on research in each of the following six areas: 1) adequacy of the educational program; 2) comprehensiveness of the educational program; 3) cost variations; 4) equalization of financial ability; 5) tax support; 6) educational efficiency.

HAWAII — The state has a unique system of full-state funding for education; a new statute provides for individual school funding.

IDAHO — Several bills have been introduced. The bills modify the current weighted-pupil foundation program, the declining enrollment option, the organization of small kindergarten classes, and require fiscal reporting to conform to a statewide system.

Idaho received a Section 842 grant to initiate and complete a school finance equalization study. The study began in the fall with a series of regional public hearings soliciting public input on the subject of school finance.

The next phase of the study will involve research on a variety of aspects of Idaho's scheme of school funding, resulting in a proposed new school finance plan. There will be a second round of public hearings to gain reaction to the proposed plan.

ILLINOIS — The Illinois Office of Education is conducting the 842 state aid equalization study. The funds support the work of the Citizens' Commission and Technical Task force. Numerous studies are being undertaken including: 1) alternative methods of identifying economically disadvantaged pupils; 2) variations in per-pupil expenditures for current operation, 1975-76; 3) development of an efficiency-oriented transportation funding formula; 4) analysis of the use of long-term debt for support of current operation; 5) study of the impact of property classification for assessment purposes on the resource equalizer formula; 6) alternative measures of wealth for Illinois school districts; 7) analysis of the impact of the use of income in the measure of wealth used to distribute general state aid; 8) analysis of program costs and services provided for special education transportation; 9) analysis of factors related to tax effort in Illinois school districts; 10) identification of the impact of noncontrollable costs for current operation on local school budgets; 11) identification of the cost components of the recognized state program and determination of the per-pupil cost; 12) determination of the

number of pupils served in programs supported by state general and categorical aids by district by program; 13) analysis of assessment rates applied to classifications of property by county; 14) identification of characteristics of Illinois school districts at the extremes in expenditure per pupil for current operation; 15) analysis of the distribution of handicapped pupils among Illinois school districts; 16) analysis of the existing capital debt burden of Illinois school districts; 17) study of alternative methods of adjusting general state aid for declining enrollment.

INDIANA — A bill has been introduced that would increase the foundation amount to $830 per ADM, set aid for the handicapped and vocational education outside the guarantee and provides for those programs based on the formula calculation, and increase the minimum state aid increase from $65 to $75 per ADM.

The Indiana School Finance Study is studying the following issues in conjunction with their 842 equalization study: 1) the extent to which the Basic Grant program insures that an appropriate education program is available to all pupils including the financing of special service needs and supportive services, such as transportation; 2) the pupil-weighting concept, options to best address the fiscal needs associated with providing educational opportunity to pupils in urban areas, and the effectiveness of the current factors used to distribute state funds for pupil transportation; 3) the current methods used to finance school construction; 4) the extent to which fiscal neutrality is achieved for current operations in Indiana; 5) the effect of the frozen tax levy on the general funds of local school corporations, the effect of the current methods of allocating the license excise tax among various governmental units, the use of the local property tax as the primary local revenue source, and the appropriateness of statewide taxes on all taxables. Additional studies that may also be undertaken include: the effect of rising energy costs on school budgets, cost and price differentials; and whether funds are really flowing to programs for handicapped and vocational pupils

IOWA — No major changes are expected this year in the legislature. Iowa is currently conducting an 842 equalization study. Seven major studies are planned that include: 1) investigation of what levels of educational programs, support services and facilities currently exist across the state, and in turn to determine adequacy to insure educational opportunity for all pupils enrolled in local educational agencies; 2) determination of the relative financial need of local educational agencies with respect to those pupils with varying educational needs and to take into account any variations among such local agencies in the costs of providing equivalent educational programs, support serv-

ices and facilities that might be associated with such factors as sparsity or density of populations, cost of resources and socioeconomic characteristics of the populations; 3) analysis of cost variances in regular programs, special education programs, vocational educational programs, educationally disadvantaged pupil programs, guidance and counseling programs, transportation, capital outlay and debt service; 4) study of equitable measures of relative financial abilities of local educational agencies to provide educational programs, support services and facilities, and to provide financial assistance based upon the wealth of the state as a whole and not the wealth of the local educational agency; 5) investigation of the equity of the tax system with respect to a financial assistance plan; 6) assessment of educator attitudes and citizen interest and participation in the educational decision-making process on the financial plan; 7) study of the effects of school district size and organization with respect to efficiency in the delivery of educational programs and other school services.

KANSAS — The legislature is expecting some very general changes to the state equalization-aid formula. An 842 study is not being conducted, but an NIE-funded legislative study has been completed.

KENTUCKY — Recommendations have been made to the state legislature that resulted from a governor's study of the finance and education program of the state's entire education structure, from kindergarten through higher education. An 842 equalization study was also conducted and results are forthcoming.

LOUISIANA — No major legislation has been proposed for this session. The Louisiana State Department of Education has undertaken the 842 equalization study. Financial disparities in distribution to local school districts as a result of unequal federal, state and local expenditures will be studied. Cost variations among local districts due to such factors as geographic location, size, differing educational needs of students, and varying socioeconomic characteristics of the populations will be studied. Other studies include examination of the equity of the tax system and methods that might be employed to modify and improve the tax structure.

MAINE — The governor has proposed a bill for alternative funding of the foundation program.

MASSACHUSETTS — A bill has been proposed that would replace the separate Chapter 70, special education, vocational education and bilingual education aid programs with a single comprehensive state-aid statute that would utilize an equalizing foundation formula including a system of pupil weights to determine

the amount of state aid to be received by each community. Two studies were conducted in 1977, with the use of 842 monies. One was a study of Chapter 70, school aid and school finance; the other study looked at the problems of declining enrollments in this state.

MARYLAND — The Governor's Commission on the Funding of Public Education, which was created January 1977, was charged with the responsibility of examining the application of state and local resources to the support of public education to provide reasonable equality of opportunity among all students without placing too heavy a burden on the taxpayers. The commission has recommended that major changes in the formula be the prime goal during the second and final year of the commission's deliberation. The commission has recommended the following for study: 1) review and determine the feasibility of consolidating one or more categorical programs with the basic current expense foundation program; 2) analyze the cost variations in and among programs; 3) review the state and local tax base.

MICHIGAN — The department of education is asking for a six-percent increase in the basic membership formula for 1978-79 fiscal year. It is conducting an 842 equalization study that will look at the relationship between expenditures, programs and student achievement.

MINNESOTA — No major school finance legislation this year. The Minnesota State Department of Education has proposed two major goals for their 842 school finance study, which are to develop a comprehensive school finance plan and to establish an information data base that permits evaluation of the total school finance program, supports the state management system for education and enhances the state's policy-making capability.

MISSISSIPPI — The state department of education has presented the following recommendations to the 1978 legislature: 1) adequate financing of an "upward" revision of the minimum foundation education program to meet at least the minimum requirements for "A" accreditation; 2) equalized assessment of property and a millage rate, which will bring about a more equalized local contribution to education; 3) minimum foundation program funds allocated on an average daily membership basis rather than an average daily attendance; 4) fiscal independence for all school districts; 5) adequate funds to meet the requirements of P.L. 94-142 and other laws dealing with special education and handicapped children; 6) appropriations for transportation for all public school students.

MISSOURI — The legislature will be debating bills relating to property tax assessment

procedures. The governor has recommended increasing the appropriation for the new formula by about $50 million. Reports on geographic cost-of-education indices, special education finance and a state role in capital construction will be debated.

MONTANA — There is no legislative session in 1978. The state department is conducting an 842 equalization study but has not yet made a definite focus for study. A first component, though, is analysis of expenditure differences from previous years.

NEBRASKA — The legislature passed a new school finance bill last session that will be on the ballot for a referendum in November 1978. The state department is conducting an 842 equalization study on the following topics: 1) tax equity; 2) trends in enrollments; 3) pattern of expenditures; 4) expenditure projections; 5) programs offered by school districts; and 6) schools of varying pupil size.

NEVADA — No legislative session in 1978. Interim studies are being conducted including the need to recodify the state's education laws.

NEW HAMPSHIRE — The center for Educational Field Services at the University of New Hampshire, in cooperation with the state department of education, is conducting a major study of New Hampshire's education finance structure.

NEW JERSEY — The legislature is looking at how the tax revenues will be allocated to the schools. Also under study are adjustments to the special education laws and aid to nonpublic schools.

NEW MEXICO — The department of finance and administration has proposed to the legislature that it address the issue of declining enrollments and change the funding formula for special education. Under the 842 equalization study, New Mexico is looking at capital outlay and size adjustment; a report will be ready in February.

NEW YORK — Governor Carey has proposed a $152-million increase in state aid to education for the 1978-79 school year, using a new strategy designed to shift funds from the wealthier suburbs to harder-pressed cities. Under this plan, New York City would receive at least $31 million more in operating aid from the state, along with a substantial portion of $54.7 million intended to assist school districts that teach large numbers of children with handicaps and learning disabilities. With the use of the federal 842 equalization monies, New York State has a number of areas they are studying, including: 1) analysis of the impact of state aid on local school districts; 2) staffing; 3) educational needs; 4) the provision of education services by regional bounds of cooperative education services; 5) school district organization;

6) financing of nonpublic school elementary and secondary education; 7) projections of the pupil population; 8) projections of United States and New York State revenues and expenditures; 9) analysis of possible formulas; and 10) a study of expenditure limitations. A court decision in the *Levittown* case is expected sometime during the year.

NORTH CAROLINA — The Governor's Commission on Public School Finance is directing a comprehensive study of public school finance with federal 842 funds. The study has three specific objectives: 1) to study the financial differences among local school districts resulting from unequal federal, state and local expenditures; and 2) to recommend an adequate aid calculation system so that it is more flexible.

SOUTH CAROLINA — The state has a number of legislative initiatives, including a bill that would reduce the teacher-pupil ratio and a bill to require all members of boards of trustees of school districts to be elected. South Carolina is using its 842 equalization monies for the funding of developmental elements necessary for the implementation of the Education Finance Act of 1977.

SOUTH DAKOTA — Major debate in this state is centered on repeal of the personal property tax.

TENNESSEE — No major legislation on school finance issues is expected this year, though there may be some fine tuning of the school finance bill of last year. The state department of education has just begun an equalization study with its 842 monies.

TEXAS — The legislature does not meet this year. An interim legislative committee is investigating the impacts of the state's school finance efforts over the past five years, including the impact of new dollars on equalization, the use of new dollars, the costing-out of a basic education program and the costs of federal and state education mandates. A revised school-aid formula may be proposed by the committee. The state department of public instruction will use 842 dollars to support policy analyses for the committee.

UTAH — The major legislation will be in the area of special education. A study of special education has been completed with the recommendations that the legislature appropriate funds for the approved direct costs estimated for all special education pupils and that the legislature appropriate $3.5 million for children with special needs.

VERMONT — Legislation is expected to be presented to the state concerning changes in the state's school finance formula. The Educational Policy Research Institute was con-

tracted to conduct the 842 equalization study, and its findings will be included in a bill to be presented to the legislature. Included in this bill will be a new percentage equalizing formula with the wealth measure for the new formula being a combination of adjusted gross income, nonresident property ownership and property valuation.

VIRGINIA — A Governor's Task Force has been studying special education (P.L. 94-142), and several bills are expected to be introduced.

WASHINGTON — There is no legislative session this year. Legislators are looking at alternative measures of wealth and guaranteed yields in their 842 study.

WEST VIRGINIA — The legislature had a school finance study conducted for them by the Institute for Education Finance. Reform recommendations made are the following: 1) West Virginia should include all the major costs of education including transportation, salaries and all other noncapital items currently distributed through categorical grants in the basic foundation program; 2) the formula should recognize students with exceptional and high-costs educational needs by weighting pupils according to relative program cost differentials; 3) A further study of cost-of-living variations should be conducted; 4) pupil transportation should be allocated on the basis of a density/cost efficiency formula; and 5) West Virginia should put forth a higher level of tax effort for education without unduly burdening the taxpayers of the state.

WISCONSIN — The legislature requested that a study be conducted that would investigate the excess cost formula the state uses for special education aid. Completion is expected in late 1978.

WYOMING — The state department of education is conducting a school finance study with Section 842 monies. The objectives of the study include the following: 1) to develop and promote a philosophy of financial equalization; 2) to define current and emerging financial policy issues related to the adequacy of programs and services; 3) to study litigation and legislation that might affect Wyoming's current and future financial support of schools; 4) to determine what sources of revenue are and may be available to Wyoming; 5) to develop a perspective on the ramifications of federal programs; and 6) to construct a system to determine school building life/replacement forecasting.

Appendix

Glossary of School Finance and Tax Terms

This glossary contains a number of tax, education and statistical terms that are used in school finance research and policy analysis. In order to make comparisons of tax and expenditure data among school districts, adjustments must be made in a number of measures. The purpose of these adjustments is to create a set of comparable numbers and a set of common terms. Standard procedures are used to make these adjustments and the glossary indicates how some of the adjustments are made.

ADA, ADM

ADA is an abbreviation for student average daily attendance and ADM is an abbreviation for student average daily membership. ADA and ADM are the official measures that most states use to represent the number of students in a school district for the purpose of calculating state aid. ADA is always less than ADM.

Assessment Ratios

The assessed valuation of property in most states is usually less than the market value of the property. In other words, owners are able to sell property for a price higher than the assessed valuation of that property. Although most states have a legal standard at which all property should be assessed, assessed valuations are usually below even the legal level and may vary widely among jurisdictions in a state. The actual assessment level or assessment ratio is determined by comparing actual assessed valuations to market values.

Assessed Valuation

The assessed valuation is the total value of property, subject to the property tax in a school district. Usually, it is established by a local government officer and is only a percentage of the market value of the property.

Assessed Valuation, Adjusted

Because local assessing jurisdictions in a state usually have different actual assessment ratios, the reported assessed valuations need to be adjusted in order to compare them among school districts. The best way to make such adjustments is to convert the assessed valuations to what they would be if all counties assessed at 100 percent of market value and then adjust them to the legal standard, for example, 33 1/3 percent. The mathematical way to make the adjustment is to divide the assessed valuation by the assessment ratio and multiply the result by 0.333. The result is called the adjusted assessed valuation. The following is an example:

Consider two school districts, A and B.

District A has an assessed valuation of $200,000.
District B has an assessed valuation of $250,000.

Focusing just on assessed valuations, District A would appear to be poorer in property wealth than District B. However, assume that the actual assessment ratio in District A is 20 percent while it is 25 percent in District B.

Assuming that the legal ratio is 33 1/3 percent, the computation of the adjusted assessed valuation for District A is as follows:

$$\text{adjusted assessed valuation} = \frac{\$200{,}000}{0.20} \times 0.333 = \$333{,}333$$

The computation of the adjusted assessed valuation for District B is:

$$\text{adjusted assessed valuation} = \frac{\$250{,}000}{0.25} \times 0.333 = \$333{,}333$$

Both school districts have the same adjusted assessed valuation. That is, both school districts effectively have the same total tax base, despite the differences in the reported assessed valuations.

Adjusted assessed valuations must be used to compare property wealth among school districts and should be the basis on which state equalization aid is calculated.

Assessed Valuation Per Pupil, Adjusted

The adjusted assessed valuation per pupil is the adjusted assessed valuation for a school district divided by the district's total ADA or ADM.

Categorical Programs

Categorical programs refer to state aid that is designated for specific programs. Examples would be transportation aid, special education aid and aid for vocational education. Equalization formula aid is not an example of categorical aid. Formula funds provide general aid that can be used for any purpose.

Correlation

Correlation is a statistical term indicating the relationship between two variables. When two variables are said to be positively correlated, as one variable increases the other variable also tends to increase. When two variables are said to be negatively correlated, as one variable increases, the other variable tends to decrease.

Correlation Coefficient

The correlation coefficient is a number indicating the degree of relationship between two variables. Because of the way a correlation coefficient is calculated, it always will have a value between − 1.0 and + 1.0. When the correlation coefficient is around + 0.5 to + 1.0, the two variables have a positive relationship or are positively correlated — when one variable gets larger the other tends to get larger. When the correlation coefficient is around zero, the two variables do not appear to have any relationship.

When the correlation coefficient is around − 0.5 to − 1.0, the variables have a negative relationship or are negatively correlated — as one gets larger the other tends to get smaller.

Current Operating Expenditures

Current operating expenditures include education expenditures for the daily operation of the school program such as expenditures for administration, instruction, attendance and health services, transportation, operation and maintenance of plant and fixed charges.

District Power Equalization

District power equalization (DPE) refers to a state equalization aid program that "equalizes" the ability of each school district to raise dollars for education. In a pure DPE program, the state guarantees to both property-poor and property-rich school districts the same dollar yield for the same property tax rate. In short, equal tax rates produce equal per-pupil expenditures. In the property-poor school districts, the state makes up the difference between what is raised locally and what the state guarantees. In property-rich school districts, excess funds may or may not be "recaptured" by the state and distributed to the property-poor districts. Most DPE state laws do not include recapture provisions. However, Montana, Utah and Wisconsin have both recapture mechanisms in their new school finance laws. DPE programs are given different names in many states including guaranteed tax base programs (GTB), guaranteed yield programs and percentage equalizing programs. DPE programs focus on the ability to support education and, thus, enhance the local fiscal role in education decision making. DPE would satisfy the "fiscal neutrality" standard without achieving "uniformity" of expenditures among school districts.

Elasticity of Tax Revenues

The elasticity of tax revenues refers to the responsiveness of the revenues from a tax to changes in various economic factors in the state or nation. In particular, policy makers may want to know whether tax revenues will increase more rapidly, as rapidly, or less rapidly than changes in personal income. The revenues from an elastic tax will increase by more than one percent for each one-percent change in personal income. Income taxes are usually elastic tax sources. In general, elastic tax sources have progressive patterns of incidence and inelastic tax sources have regressive patterns of incidence. Expenditure elasticity may be defined similarly.

Equalization Formula Aid

Equalization formula aid is financial assistance given by a higher-level government — the state — to a lower-level government — school districts — to equalize the fiscal situation of the lower-level government. Because school districts vary in their abilities to raise property tax dollars, equalization formula aid is allocated to make the ability to raise such local funds more nearly equal. In general, equalization formula aid increases as the per-pupil property wealth of a school district decreases.

Expenditure Uniformity

Expenditure uniformity is an equity standard in school finance requiring equal expenditures per pupil or per weighted pupil for all students in the state. (See Fiscal Neutrality.)

Fiscal Neutrality

Fiscal neutrality is a court-defined equity standard in school finance. It is a negative standard stating that current operating expenditures per pupil cannot be related to a school district's adjusted assessed valuation per pupil. It simply means that differences in expenditures per pupil cannot be related to local school district wealth. (See Expenditure Uniformity.)

Flat Grant Program

A flat grant program simply allocates an equal sum of dollars to each public school pupil in the state. A flat grant is not an equalization aid program because it allocates the same dollars per pupil regardless of the property or income wealth of the local school districts. However, if *no local* dollars are raised for education and all school dollars come from the state, a flat-grant program becomes equivalent to full-state assumption.

Foundation Program

A foundation program is a state equalization aid program that typically guarantees a certain foundation level of expenditure for each student, together with a minimum tax rate that each school district must levy for education purposes. The difference between what a local school district raises at the minimum tax rate and the foundation expenditure is made up in state aid. In the past, foundation programs were referred to as minimum foundation programs and the foundation level of expenditure was quite low. Today, newly implemented foundation programs usually require an expenditure per pupil at or above the previous year's state average. Foundation programs focus on the per-pupil expenditure level and thus enhance the state government's fiscal role in education.

Full-State Assumption

Full-state assumption (FSA) is a school finance program in which the state pays for all education costs and sets equal per-pupil expenditures in all school districts. FSA would satisfy the "uniformity" standard of equity. Only in Hawaii has the state government fully assumed most of the costs of public education.

Guaranteed Tax Base Program (GTB)

See District Power Equalization.

Guaranteed Yield Program

See District Power Equalization.

Median Family Income

Median family income usually is that reported in the 1970 U.S. Census. It reflects income for 1969. If the income of all families in a school district were rank ordered, the median income would be the income of the family midway between the lowest- and the highest-income families.

Municipal Overburden

Municipal overburden is an argument that refers to the fiscal position of large cities. Municipal overburden includes the large burden of noneducation services that central cities must provide and that most other jurisdictions do not have to provide or at least do not have to provide in the same quantity. These noneducation services may include above-average welfare, health and hospitalization, public housing, police, fire and sanitation services. These high noneducation fiscal burdens mean that education must compete with many other functional areas for each local tax dollar raised, thus reducing the ability of large city school districts to raise education dollars. The fiscal squeeze caused by the service overburden, together with the concentration of the educationally disadvantaged and children in need of special education services in city schools, puts central city school districts at a fiscal disadvantage in supporting school services.

Percentage Equalizing Programs

See District Power Equalization.

Progressive Tax

A progressive tax is a tax that increases proportionately more than income as the income level of the taxpayer increases. Under a progressive tax high-income taxpayers will pay a larger percent of their incomes toward this tax than low-income taxpayers.

Property Tax Circuit Breaker Program

A property tax circuit breaker program is a tax relief program, usually financed by the state, that focuses property tax relief on particular households presumed to be overburdened by property taxes. That is, it is intended to reduce presumed regressivity of the property tax. A typical circuit breaker attempts to limit the property tax burden to a percent of household income and applies only to residential property taxes. The percent usually rises as income rises in an attempt to make the overall burden progressive. Most states enacted circuit breaker programs initially just for senior citizens, but a few states have extended circuit breaker benefits to all low-income households, regardless of the age of the head of the household. The circuit breaker is based on actual or estimated taxes paid on residential property and generally takes the form of a credit on state income taxes.

Property Tax Incidence or Burden—Traditional and New Views

The traditional view of property tax incidence divided the tax into two components: that which fell on land and that which fell on improvements, i.e., structures. Property taxes on land were assumed to fall on landowners. The part on improvements was assumed to fall on homeowners in the case of owned homes, to be shifted forward to tenants in the case of rented residences and to be shifted forward to consumers in the case of taxes on business property. Nearly all empirical studies based on the traditional view found the incidence pattern to result in a regressive burden distribution, markedly regressive in the income

ranges below $10,000. The new view of property tax incidence considers the tax to be, basically, a uniform tax on all property in the country. Such a tax is borne by owners of capital and, thus, the burden distribution pattern is progressive. Although the new view allows for modifications caused by admitted tax rate differentials across the country, adherents of the new view hold that even with the modifications the tax would exhibit a progressive pattern of incidence over much of the range of family incomes.

Proportional Tax

A proportional tax is a tax that consumes the same percent of family income at all income levels.

Pupil-Weighted Systems or Weighted-Pupil Programs

A pupil-weighted system is a state aid system in which pupils are given different weights based on the estimated or assumed costs of their education program; aid is allocated on the basis of the total number of weighted students. Usually, the cost of the education program for grades 4-6 is considered the standard program and weighted 1.0. For states, such as Florida, that choose to invest more dollars in the early school years; pupils in grades K-3 are given a weight greater than 1.0, typically around 1.3. In other states, high school students are weighted about 1.25, although these secondary weightings slowly are being eliminated. The two major programmatic areas where numerous weightings have been used are special and vocational education. Florida includes weights for 15 different categories of special education and 6 different categories of vocational education. Weighted-pupil programs, therefore, recognize that it costs more to provide an education program for some students than for others and includes the extra costs via a higher weighting. State aid is then calculated and distributed on the basis of the total number of weighted students in each school district. Determining the appropriate weight is a difficult matter.

Regressive Tax

A regressive tax is a tax that increases proportionately less than income as the income level of the taxpayer increases. Under a regressive tax low-income taxpayers will pay a larger percent of their incomes toward this tax than high-income taxpayers.

Revenue Gap

A revenue gap exists when projected expenditures exceed projected tax revenues. Although revenue gaps usually are not allowed to exist in fact for current fiscal years, of importance are the projected values. If revenue gaps are projected, tax rate increases or expenditure cuts, both politically difficult, will be required. Revenue gaps usually occur when the elasticity of expenditures exceeds the elasticity of revenues. This often happens at the state and local level because state and local taxes are, in most instances, less elastic than expenditures. If states want to eliminate the occurrence of revenue gaps and the constant need to increase tax rates or decrease projected expenditure levels, attention must be given to ways to increase the elasticity of state tax systems, usually by increasing reliance on income taxes. (See Elasticity of Tax Revenues).

School District Tax Rate

School district tax rate is the term states use to indicate the local school property tax rate. The tax rate often is stated as the amount of property tax dollars to be paid for each $100 of assessed valuation or, if given in mills, the rate indicates how much is raised for each $1000 of assessed valuation. For example, a tax rate of $1.60 per hundred dollars of assessed valuation means that a taxpayer pays $1.60 for each $100 of his or her total assessed valuation; a tax rate of 16 mills indicates that $16 must be paid for each $1000 of assessed valuation.

State Aid for Current Operating Expenses

State aid for current operating expenses is the sum of the equalization formula aid and categorical aid for vocational education, special education, bilingual education, transportation and other categorical aid programs. (See Categorical Programs.)

Tax Burden (or sometimes Tax Incidence)

Tax burden typically refers to the percent of an individual's or family's income that is consumed by a tax or by a tax system. Usually, one wants to know whether a tax or tax system's burden is distributed in a progressive, proportional or regressive manner. In the United States, a tax system that is progressive overall seems to be the most acceptable to a majority of people. Tax burden analysis takes into account the extent of tax shifting.

Tax Incidence

See Tax Shifting and Tax Burden.

Tax Shifting or Tax Incidence

Tax shifting refers to the phenomenon wherein the party that must legally pay a tax, for example, a store owner, does not in fact bear the burden of the tax but shifts the tax to another party, for example, the consumer of item that is sold in the store. Taxes can be shifted either forward or backward. For example, landlords might be able to shift their property taxes forward to tenants in the form of higher rents, and a business might be able to shift property or corporate income taxes backward to employees in the form of lower salaries. The ability to shift taxes depends on a variety of economic factors and there is great debate among economists over the extent to which some taxes are shifted. It is usually agreed, however, that individual income taxes are not shifted and rest on the individual taxpayer. It also generally is agreed that sales taxes are shifted to the consumer. There is argument over the extent to which corporate income taxes are shifted to consumers in the form of higher prices or to employees in the form of lower wages versus falling on the stockholders in the form of lower dividends. There is also debate about who effectively pays the property tax. Tax incidence analysis examines how various taxes may or may not be shifted.

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